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ATTRIBUTIONAL STYLE, PRESENTING SYMPTOMS, AND READINESS TO CHANGE IN FEMALE CHILDHOOD SEXUAL ABUSE SURVIVORS

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ATTRIBUTIONAL STYLE, PRESENTING SYMPTOMS, AND READINESS TO CHANGE IN FEMALE CHILDHOOD SEXUAL ABUSE SURVIVORS

by

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DISSERTATION APPROVAL SHEET

This dissertation was submitted by Eric Ford Kebker under the direction of the Chairperson of the dissertation committee listed below. It was submitted to the School of Psychology and approved in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Clinical Psychology at Nova Southeastern University.

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DEDICATION

To Laura, Noah, and Jack, whose sacrifice for this book was greater than mine.

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Eric Ford Kebker

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ABSTRACT

The purpose of this study was to gain a better understanding of the effect that attribution style and presenting symptoms has on the self-reported readiness to change of female survivors of childhood sexual abuse. The aim was to demonstrate that the stages of change are a useful concept in understanding how to approach treatment with female child sexual abuse survivors seeking psychotherapy.

One factor that influences the effectiveness of psychotherapy is a client's degree of motivation. The concept of "stage of change" has been used as a measure of client motivation. Stage of change consists of four basic stages; precontemplative, contemplative, action, and maintenance. Prior research has demonstrated that assisting clients in transitioning from a lower to a higher stage of change early in psychotherapy can improve outcomes. Assigning clients a "readiness to change" score is a simple method of categorizing their stage of change.

There are many variables that could impact a client's readiness to change. The two selected for this study were attributional style and presenting symptoms. The statistical analysis consisted of using correlation to determine the strength of the relationship between readiness to change, overall attribution styles, and presenting

symptoms. Multiple regression was used to see how much of the variance in readiness to change could be accounted for by different levels of attributions or symptomatology.

No correlation was found between readiness to change and the other variables, although internal attribution style, external attribution style, and symptomatology were all correlated with each other. Likewise, the different levels of attribution and symptomatology did not account for a significant amount of variance in readiness to change. A secondary analysis into the relationship between total attributions endorsed and symptomatology provided evidence that individuals who make more attributions report significantly more presenting symptoms than individuals who make fewer attributions.

The conclusions drawn from this study focus on the importance of utilizing client motivation in the initial sessions of therapy, and propose that focusing on reducing the number of attributions made could be more benefitial to clients than helping them move from one attribution style to another.

CHAPTER I

Statement of the Problem

A large segment of women living in the United States report having experienced some form of sexual abuse before they reached the age of 18. Some estimates indicate that one in three women have been sexually abused during childhood (Gold, Hughes, & Swingle, 1996; Najman et al., 2005; Steel, Sanna, Hammond, Whipple, & Cross, 2004). While many of these survivors are able to develop into fully functional adults, a sizeable number struggle. Among adult women who have sought mental health counseling, approximately 59% have a history of childhood sexual abuse (CSA)(Hutchings & Dutton, 1993). It has been suggested that given the number of women at-large who have had CSA experiences, this is still an underserved population (Lewis, Griffin, Winstead, Morrow, & Schubert, 2003).

A wide-range of psychological difficulties has been documented among female survivors of CSA. These include, but are not limited to: post-traumatic stress disorder (Feerick & Snow, 2005), dissociation (Gipple, Lee, & Puig, 2006), depression (Kendler, Kuhn, & Prescott, 2004; Runyon & Kenny, 2002; Flett, Blankstein, Occhiuto, Koledin, 1994), increased sensitivity to stressful life events (Kendler, Kuhn, & Prescott, 2004), somatic problems such as headaches, gastrointestinal symptoms, gynecologic symptoms, and panic-related symptoms (Leserman, 2005), agoraphobia and panic (Katerndahl, Burge, & Kellogg, 2005), sexual dysfunction (Najman et al., 2005), difficulties with intimate relationships (Colman, 2004), and personality disorders (Johnson, Sheahan, & Chard, 2003; Johnson, Cohen, Brown, Smailes, & Bernstein, 1999).

The question of why the experience of CSA adversely impacts some women more than others is difficult to answer. There are a number of factors surrounding the abuse that are likely contributors. Among the known contributing factors are environment (e.g., supportiveness and stability of home environment, the involvement of trusted adults; Dong, Anda, Dube, Giles, & Felitti, 2003; Draucker, 1996; Fassler, Amodeo, Griffin, Clay, & Ellis, 2005), the characteristics of the abuse (e.g., frequency and duration of the abuse, relationship to the perpetrator, age when abuse began, and abuse involving penetration; Leserman, 2005; Gold, Hughes, & Swingle, 1996), and individual characteristics (e.g., greater resiliency, and perceptions of abuse; Leahy, Pretty, & Tenenbaum, 2003; Liem, James, O'Toole, & Boudewyn, 1997).

In his book "Not Trauma Alone," Dr. Steven Gold (2000) states that most adult survivors do not present for treatment with one or two straight-forward DSM diagnoses. Their symptoms are often varied and encompass a wide-range of clinical disorders. These disorders often overlay poorly developed day-to-day functioning, which utilizes skills that most take for granted, but that were not conveyed to them as children growing up in a disorganized and destructive environment. Unlike the typical conceptualization of trauma as a life-threatening and incongruent event, prolonged childhood abuse is better understood as additional disruptive events occurring in the context of an equally damaging family system. As a result, prolonged CSA survivors frequently decide to seek mental health treatment because of their difficultly managing their adult roles and relationships in addition to resolution of their abuse experiences. Using this context, it becomes easier to understand that, despite seeking treatment, these clients may find it

difficult to believe that they can do much to affect their environment or make changes in their life.

The impact of CSA on women has been hotly debated for a long time. In his early work, Sigmund Freud wrote that much of the neurotic behavior he observed in his female patients was directly attributable to their sexual abuse as children. He was not prepared for the backlash that would come from his society and peer circles and he quickly backed away from those claims. For decades after that, accounts of childhood sexual abuse were dismissed as lies or female fantasy. The feminist movement can be largely credited for changes in societal attitudes that now recognizes the reality of CSA, prosecutes offenders, and encourages women to talk about their experiences and seek resolution (Herman, 1997).

As a result, there has been a growth in the number of sexual assault and sexual abuse survivors who seek mental health treatment. There are still disparities in who receives treatment and who doesn't. Treatment-seeking survivors tend to be white females with more education than the national average (Ullman & Brecklin, 2002; Palmer, Brown, Rae-Grant, & Loughlin, 2001). As a group, these women tend to be more depressed, have lower self-esteem, and report difficulties in family functioning. They are more likely than the general population to have been raised in adoptive or foster homes. They are more likely to be divorced or separated from a spouse. Survivors who seek counseling are likely to have experienced some combination of physical, sexual, and emotional abuse. The age of onset of abuse of these survivors was about four to six years of age. Fifteen percent of the survivors in one study had multiple perpetrators (Palmer at al.).

Palmer et al. (2001) reported that the majority of survivors in their sample reported seeking help for "problems related to the abuse" (p.139). Their help-seeking tended to be a long process, with the average survivor receiving help from three sources and utilizing ten or more sessions. Frequency of the abuse was directly and positively correlated with the number of different professionals consulted. Most survivors seeking treatment found at least one professional or source that they described as "very helpful." (p.140).

One area of potential research that has been neglected is how the survivor's attitude toward therapy and the need for change impact their ability to find a helpful mental health professional. An underlying assumption of the research on treatment-seeking by survivors is that they are actively engaged in the treatment process. However, Palmer et al. (2001) acknowledge that many therapists "often find it stressful to treat survivors, because of their resistance to change, their ways of relating to helpers, and the nature of the work" (p. 136). The Transtheoretical model of psychotherapy offers an intriguing conceptualization to bridge these two sentiments.

Helping clients to acknowledge the need to change and to reevaluate their beliefs about change is the basis of the Transtheoretical model. The premise behind the model is that individuals struggling with doubts about the possibility of being able to change and improve their situation must resolve these issues before any meaningful action towards change can take place (Ford, 1996). Known largely for its proposed "stages of change" (it is often referred to as the Stage of Change model), the Transtheoretical model is a popular approach to conceptualizing addictive and compulsive behaviors, and is being explored with other treatment populations. It has demonstrated utility with ethnically

diverse samples of adults and adolescents (Callaghan et al., 2005; Johnson, Fava, Velicer, Monroe, & Emmons, 2002). The SOC model destigmatizes treatment seekers by identifying their readiness to change and encouraging clinicians to conceptualize progress not as the cessation or overcoming of problematic behaviors, but moving from one stage of change to the next, and adapting treatments to the individual's degree of readiness (West, 2005). Providing clients with psychoeducation on the stages of change and asking them to identify where they fit along this continuum is believed to provide a change schema that assists clients in organizing their ambivalent thoughts and mobilizing their resources toward actively working on problems (Hodgins, 2005). For therapy to be most effective, everyone should receive an intervention, matched to their current stage, which is designed to help them progress to the next stage (Sutton, 2005). The cumulative research on the Transtheoretical model indicates that using a client's stage of change to inform the therapeutic relationship and treatment interventions enhances treatment outcome. Matching treatment to an individual's stage of change can increase the quality of the therapeutic relationship and effectiveness of therapy. The areas that seem most improved are a reduction in client drop-out and in sustained treatment outcomes (Prochaska & Norcross, 2001).

The applicability of the Transtheoretical model to CSA survivors has received marginal attention. There has been one study published looking at the relationship between a survivor client's stage of change and their use of change processes. The results indicated that individuals in the later stages of change use more behavioral processes of change, which concurs with the general assumption of the model (Koraleski & Larson, 1997). Although this suggests that CSA survivors can be categorized in terms

of the Transtheoretical model, it failed to address what factors might influence a client's stage of change.

As suggested in the statement by Palmer and associates, resistance to change among CSA survivors is a common complaint by mental health service providers. One characteristic that could possibly effect the impact of abusive experiences and the belief in the possibility of change is an individual's attribution style. Attributions are a cognitive attempt to assign meaning and agency to life experiences. One way in which attributions are used in reference to CSA is to assign responsibility or blame for the trauma the person experienced (Massad & Hulsey, 2006). Attributions are multi-faceted. Some attributions seek to explain the source (locus) of the problem. Others describe personal influence on an event (control). Attributions can define the permanence (stability) or reach (generalizability) of a problem. It is generally believed that if the causal attributions for events with a negative outcome are internal, stable, and global (i.e., "I am the source of the problem, it's not going to change or go away, and it affects every aspect of my life"), the individual will be more susceptible to negative psychological outcomes (Abramson, Seligman, & Teasdale, 1978). The negative psychological effects found in women sexually abused as children who have an internal attributional style include a higher incidence of depression, anxiety, and hostility than either women who have not been abused or women who have an external attributional style. Symptom severity was also found to be the highest among women with a CSA history/ internal attributional style combination (Porter & Long, 1999). Symptoms of Acute Stress Disorder have been shown to be significantly related to a view of the self as the locus for sexual abuse (Koopman, Gore-Felton, & Spiegel, 1997).

The relationship between attributions and the Transtheoretical model has also been an area with little research activity. The results that have been produced are inconclusive to date. It should be noted that none of the studies that examined the relationship between attribution and stage of change focused on causal attributions. The attributions studied were all predictive of future behavior, and focus on the participants' perceived situational or overall control. Therefore a generalization to the causal attributions of CSA cannot be made and is still in question.

Another area of functioning that could be related to an individual's readiness to make changes in therapy is the degree of their psychological distress. The Transtheoretical model was originally intended to help explain why some people are able to make changes in relation to specific behavioral conditions. As a result, very little research has been compiled about the relationship of nonspecific psychological distress and the stages of change (Rochlen, Rude, & Barón, 2005). One study looking at stage of change and mental health symptoms in abused African-American women found that individuals in the further stages of change (i.e., action and maintenance) reported more severe mental health symptoms. However, the portion of the sample that was in those later stages was small enough as to render the results inconclusive (Edwards, Houry, Kemball, Harp, McNutt, et al., 2006).

The logic behind selecting nonspecific psychological distress as a predictor of stage of change can be illustrated by the following example, the use of behavioral activation as a treatment for depression. Behavioral activation focuses on getting the depressed client to engage in pleasurable activities instead of focusing on cognitive reframing or treating with medication. As the name implies, the client needs to actively

engage in making changes to their day-to-day routine. Someone in a precontemplative stage may view such an approach cynically ("that's stupid, nothing gives me pleasure anymore") and not engage. Someone in a contemplative stage may be able to recognize the value in such an approach, but still not be ready to actually engage in the process. Rochlen, Rude, and Barón's (2005) research speaks to this when they reported that individuals in the precontemplative stage experience less symptom reduction than clients in the other stages. For the purposes of this study, it seems reasonable to explore the possibility that identifying how much psychological distress someone is reporting could help identify their stage of change, which may in turn help a therapist to know how likely a person is to benefit from treatment.

Summary of the Research Problem

Gaining a better understanding of the relationship between attribution style, presenting symptoms, and stage of change among CSA survivors in therapy has a practical application for therapists who desire additional methods for increasing clinical effectiveness with this population. If a client is able to affect change early in therapy, moving from one stage to another during the first month of treatment, her chances of moving to the action stage (i.e. the stage where the client is actively working on creating desired change) within the next six months doubles (Prochaska & Norcross, 2003). Increasing the client's ability to make therapeutic changes would undoubtedly be beneficial to her, especially if she is limited in the number of therapy sessions she can attend.

Identifying a sexually abused client's readiness to change will aid therapy by providing additional information about what the client's current motivation and attitude is

towards treatment. This will enable the selection of therapeutic interventions that are more likely to succeed. Understanding the attributional style of a sexually abused client will add insight into some of the client's attitudes and thoughts that could be restricting their motivation to change. Incorporating attributional style into the treatment could increase the likelihood that the important initial stage change occurs early in therapy. There is currently a scarcity of counseling process and outcome research for adult survivors of childhood sexual abuse (Koraleski & Larson, 1997). This adds to the necessity of the present study.

This study is intended to examine the relationship between the attribution styles of female CSA survivors and their readiness to make changes with the assistance of psychotherapy. Both general attribution style (internal vs. external) and specific foci of their attributions will be evaluated. The relationship of self-reported psychological distress and readiness to change will also be examined. This will include their overall level of distress and their distress on five specific vectors (relationship to self/other, daily living/role functioning, depression/anxiety, impulsive/addictive behavior, and psychosis). Finally, this study will also examine if the interactions between the different general attribution styles with overall symptomatology and to each other are related to readiness to change.

CHAPTER II

Review of the Literature

The purpose of this section will be to present a thorough review of relevant psychological literature to provide a better understanding of the Transtheoretical Model, attribution theory, and the theoretical basis for the belief that there may be a relationship between the two constructs. The review of psychological symptoms will not be separated into their own section, but rather be incorporated into the discussion as it unfolds.

Transtheoretical (Stage of Change) Model

Koraleski and Larson (1997) published one of the few articles that test the validity of the Transtheoretical model in regards to adult CSA survivors. Their premise was that CSA survivors in therapy go through a series of stages before reaching a resolution on abuse issues. The therapeutic focus in each of those stages is different, and can include issues such as establishing trust, managing emotions, developing coping skills, and correcting faulty cognitions. Although many therapists address these issues in counseling, Koraleski and Larson argue that an operational model that incorporates this stage work is still lacking. This is the reason they cite for using the Transtheoretical model in research and therapy with CSA survivors.

The Transtheoretical Model is a higher order theory that focuses on the unifying and contextual aspects of psychotherapy. Transtheoretical approaches attempt to apply constructs and concepts that "cut across the traditional boundaries of the psychotherapies" (Prochaska & Norcross, 2003, p. 515). The primary purpose of the model is to explore how people change, and it is intended to help practitioners

subscribing to various psychotherapeutic approaches encourage client change. The model consists of three core dimensions: processes of change, stages of change, and levels of change (Prochaska & Norcross, 2003).

Processes of Change

The processes of change are the actual methods employed to change problematic emotional, cognitive, behavioral, and relational patterns. According to the Transtheoretical model, psychotherapies differ more on the content for therapeutic change than in the processes used. For example, behavioral therapists, cognitive therapists, and psychodynamic therapists all employ some form of consciousness-raising, although their reasons and goals for using it are usually different. Five central change processes have been consistently supported through empirical study. Subdivided into 10 total change processes, they include: Consciousness Raising (which consists of feedback and education), Catharsis (corrective emotional experiences and dramatic relief), Choosing (self liberation and social liberation), Conditional Stimuli (counter-conditioning and stimulus control), and Contingency Control (self/environmental reevaluation and contingency management). Consciousness Raising, Catharsis, and Choosing are more cognitive and emotional in orientation. Consciousness Raising, for example, teaches the client how to increase the information available to them to improve their effectiveness in responding to others and their environment. When that information is internal, consciousness raising is called “feedback.” When the information is external, it is referred to as “education.” Conditional Stimuli and Contingency Control have an action/behavioral orientation. Therapists using behavioral techniques will often reward client behavior to evoke change (Prochaska & DiClemente, 1982). Each of these

processes can be employed at different times with differing success rates, as will be seen when incorporated with the second dimension, stages of change (Prochaska & Norcross, 2003).

Stages of Change

The originators of the Transtheoretical model view the concept of "stages of change" as their unique contribution to psychotherapy. They say that the concept developed through a series of interviews with both psychotherapy clients and self-changers, in an attempt to determine which change processes they used. A frequent response to their inquiries was that it was dependant on where they were in the course of their change. Different points required different processes. What these patients were describing was formalized into the "stages of change." Each stage is a set combination of attitudes, intentions and behaviors that are most recognizable to a certain period in an individual's cycle of change. The five commonly identified stages are precontemplation, contemplation, preparation, action, and maintenance (Prochaska & Norcross, 2003).

The precontemplative stage identifies individuals with no intention of altering their behavior. When presenting for psychotherapy, they are often compelled to attend, usually by a partner, parent, employer, or judge. They may change their behavior momentarily, but change is not sustained in the precontemplator. Resistance to recognizing problems is the mode of precontemplators (Prochaska & Norcross, 2003). A study evaluating the Transtheoretical model in a college counseling center identified clients in the precontemplation stage as having a less favorable evaluation of the therapeutic alliance and experienced less improvement in their symptoms when compared to other help-seekers in more advanced stages (Rochlen, Rude, & Barón, 2005).

The next stage, contemplation, consists of those who are aware of having problems and are seriously thinking about taking action. However, at this stage, no commitment to action has been made. Their mode is not of resistance, but of serious contemplation (Prochaska & Norcross, 2003).

The third stage is preparation. It differs from contemplation because it involves intent for action. This intent can be accompanied by some preparatory work on a problem, such as cutting back on the number of cigarettes smoked, or no longer associating with friends who encourage or enable problematic behavior.

When individuals reach the action stage, they begin to modify their thoughts, behaviors, and environment to overcome their problems. This is a period of intense and sustained effort, and requires substantial commitment and energy. It is important to note that this is not the only stage in which change is occurring. Different types of change takes place as each stage is traversed. But the action stage is where there is active commitment to making life different (Prochaska & Norcross, 2003).

Maintenance is the final stage of change. The effort of individuals here is to sustain and strengthen the achievements of the action phase. It is far from a static stage; rather, it is a continuation of change. Although technically someone is considered to be in the maintenance stage if they have consistently engaged in their new behavior for six consecutive months, some problems require a lifetime of maintenance behaviors (Prochaska & Norcross, 2003).

Using the model to predict progressive movement during treatment is referred to as a "stage effect." For example, individuals in the "preparation" phase at intake are more likely to progress to the action or maintenance phase than a "contemplator."

Someone in the “contemplation” phase is more likely to progress to the action or maintenance phase than a “precontemplator” (Sutton, 2005). Stage effects have been demonstrated in brain impairment rehabilitation, treatment of panic-disorder, cardiac patients receiving counseling, and smoking cessation. Stage effects have been found to carry into 12 and 18 month follow-ups with study participants (Prochaska & Norcross, 2003).

The magnitude of the relationship between processes of change and stages of change is strong. A meta-analysis of 47 studies demonstrated this effect size to range between .7 and .8 (Rosen, 2000). A convincing aspect of this study is that it drew from multiple areas in health psychology. This produces evidence that it is not the problem an individual has (smoking, over-eating, lack of exercise, etc.) that influences which processes of change to employ as much as the individual’s readiness to change. By selecting processes that fit with the client’s current cognitive state, the therapist will be more effective in helping the client to produce change. Prochaska and Norcross (2003) outline which processes of change have been shown to be the most appropriate approach to the five stages. Individuals in the precontemplation and contemplation stages are more likely to respond to interventions which raise consciousness and give the opportunity for dramatic relief. In addition, individuals in the contemplation stage are also likely to benefit from reevaluation of their self and the environment. Interventions that promote self-liberation are well-suited to individuals in the preparation stage. Behavioral and experiential approaches have the greatest efficacy with individuals who are in the action and maintenance stages.

The relationship between processes of change and stages of change appears to generalize outside of the realm of health psychology. One example comes from a study of men and women who batter their partners. Researchers found that the processes of change and stages of change were strongly related. There were no gender differences except for the use of social liberation strategies (Babcock, Canady, Senior, & Eckhardt, 2005).

Levels of Change

The problems that an individual has, and the order in which they are most effectively addressed, is also a dimension of the Transtheorectical model. It is recognized that humans are complex and influenced by multiple internal and external processes. The levels of change organize these contributing factors into a hierarchy of distinct yet interrelated problems. The levels are (1) psychological symptoms/ situational problems, (2) maladaptive cognitions, (3) current interpersonal problems, (4) family/ systems conflicts, and (5) intrapersonal conflicts (Prochaska & Norcross, 2003).

The reason for beginning with symptoms and situational problems is that change is typically easier and quicker to affect in these areas, which gives the client a sense of accomplishment and added motivation to continue working in therapy. Providing efficient symptom relief is also a practical benefit for clients who are limited to short-term therapy due to financial or insurance restraints. This isn't to say that only one level may be addressed at one time. Many psychological symptoms are related to maladaptive cognitions, which often stem from systemic conflicts. Therapy may move back and forth between the levels, but therapeutic goals should focus on difficulties at the lower levels before advancing to the higher levels (Prochaska & Norcross, 2003).

Finally, it should be expected that clients will proceed through the stages of change multiple times during the course of therapy as goals are achieved and the levels are advanced through (Prochaska & Norcross, 2003). A client struggling with depression and anxiety may not be aware of or ready to address their interpersonal problems and unsupportive home environment. Likewise, it is not uncommon for clients to come to the realization that they lack knowledge of healthy coping behaviors only after they have made major behavioral changes, such as smoking cessation or breaking an addiction.

Usefulness of the Transtheoretical Model

The stages of change have some predictive ability in regards to treatment completion. When combined with processes of change, stages of change were able to correctly identify 93% of premature therapy terminators in one study. The stage profile for premature terminators was precontemplation. The stage profile for appropriate therapy terminators resembled the action stage. Most of the individuals who remained in therapy at the end of the study were in the contemplation stage (Prochaska & Norcross, 2003).

Overall, the SOC model has yielded mixed empirical results, despite its general popularity. One criticism of the model is that it takes client motivation out of individual context and tries to make it fit into neat categories. Depending on the client's personal context and problem, readiness to change is likely to vary (Girvin, 2004). Samarasinghe (2006) notes that an individual who presents in the contemplation stage in session might think as a precontemplater in other situations. It would be a mistake to assume that individuals move in a straightforward path through the stages. West (2005) argues that it would be more appropriate to view this model as a "state of change" rather than "stages

of change," as there is still speculation regarding whether changing an individual's attitude necessarily results in lasting behavior change.

Proponents of the SOC model disagree, responding that state of change casts clients in an on-off framework. They assert that the concept of stages acknowledges that there is an ongoing transformation occurring. They view readiness to change as a series of tasks and accomplishments that can result in both momentary and sustained change (DiClemente, 2005). In their view, even if the client is a contemplator in session only, the time spent in precontemplation outside of therapy will be affected by in-session contemplation, working "behind the scenes" to move the individual into a full contemplative stage.

Attribution Theory

Kolko and Feiring (2002) have suggested two reasons to make the attributions of survivors of child abuse a topic of research. First, abusive and traumatic experiences alter a child's "basic assumptions about the self, close relationships, and their broader networks" (p. 5). These alterations can lead to psychological distress and impair functioning. Second, attributions are accessible cognitions that are able to be modified. Therefore, both attributional style and specific attributions about events like abuse are open to therapeutic intervention.

Attribution theory began as a movement in social psychology, where it was proposed that individuals seeking self-mastery and understanding will ask why events occurred and what role they and others played in them. With the growing influence of the cognitive movement, theorists began to see attributions as central to how people

interpret the world. These interpretations were viewed as having a direct effect on feeling and actions, and as such became central to the process of change (Weiner, 1990.)

At the heart of attribution theory is a desire to understand how people explain what has happened in their past, and how that affects their thoughts, behaviors, and emotions in the future. Each individual possesses schema that maintain their basic beliefs and guide their expectations about the world. Most information that is encountered every day either is assimilated into the current schema, ignored, or minimized. Some information and experiences are so far from the ordinary that the schema has to be altered to accommodate it or risk a breakdown of this core cognitive component (Janoff-Bulman, 1989). Situations that are unusual, unexpected, or unwanted are the most likely to require attributional reasoning (Barker-Collo, 2001).

When the outcome of a situation contradicts the individual's expectations, it stimulates the person to question and revise her causal assumptions (Weiner, 1985). Specifically stated, "novel events promote exploration" (p. 81). It is relatively easy to understand how single-incident sexual abuse can illustrate this phenomenon. The individual is exposed to a threatening situation that is unusual, unexpected, and unwanted. In situations of prolonged abuse, it is necessary to remember that it started with a single incident. Repeated victimization would make the attributional search more likely and more intense. Conceptually, prolonged abuse situations would seem likely to result in attributions that are more fixed and powerful. In addition to unsettling internal messages, recognition that their experiences are inconsistent with the experiences of some of their peers, conflicting messages from the perpetrator, or a lack of support,

belief, or protection from non-abusing family members can increase the need for causal attributions.

Attribution Formation

Massad and Hulsey (2006) describe two leading theories for how causal attributions are formed in the wake of a traumatic event. Both are based on the cognitive processes involved in making cause-and-effect judgments. These models are the "connectionist model" and the "causal power model."

The connectionist model could be referred to as a form of cognitive learning. Co-occurrences between proximate events (occurring around the same time and place) result in weights of importance being assigned to perceived causes. In other words, a certain action or behavior of the victim is paired with the assault to create an attribution. For example, a child goes over to a friend's house to play and is molested by the friend's older brother. The child might attribute the cause of the abuse to choosing to go play at the friend's house. The proximity of the events, the intensity, and the novelty of the situation give explanatory significance to selected pieces of the abuse. This explanatory attribution carries a large amount of weight and is difficult to counter with alternative, less-salient explanations. If the survivor attributes causation to her own actions rather than those of the perpetrator, this can be especially problematic (Massad & Hulsey, 2006). Internalized causal attributions that place responsibility for the abuse on the actions of the victim can be expressed as shame and self-blame. Shame and self-blame are important predictors of symptom severity and have been found to mediate the relationship between internal attributions and symptoms of PTSD and depression, low

self-esteem, and self-reported psychological adjustment (Celano, Hazzard, Campbell, & Lang, 2002; Feiring, Taska, & Chen, 2002; Feiring, Taska, & Lewis, 1998).

The causal power model is based on the theory that attributions and causal determinations are the result of estimating and comparing probabilities. In this case, all of the stimuli associated with the event are assigned a degree of causal or protective power. For each stimulus, the survivor must decide if the occurrence of the abuse was contingent on the presence or absence of that stimulus. In the case of CSA, attribution theory proposes that the child experiences an effect (molestation) and searches for a cause. The child considers their decision to go to the friend's house and assigns a high probability to that being the cause. Likewise, she determines that not going to the friend's house would have prevented the abuse. This combination of causal and protective potential becomes a powerful attribution. If the survivor assigns more probability of the outcome occurring because of their choices rather than those of the perpetrator, this again is problematic (Mussad & Hulsey, 2006).

Both models assume that learning occurs through experience, and that repeated experiences increase the strength of what is learned. But these experiences are not only physical. Massad and Hulsey (2006) explain that more important to the development of self-blame attributions are the repetitive negative cognitions that occur in the wake of traumatic events and are a hallmark feature of disorders like posttraumatic stress.

Attributional Dimensions

Causal attributions are categorized into three or four dimensions: locus, controllability (frequently discussed as an aspect of locus, as in "locus of control"), stability, and generalizability. Although these concepts have been around for some time,

the current view of the dimensions was offered by Abramson, Seligman, and Teasdale (1978).

The idea of individuals attributing causes of events to either internal or external sources was the first of these dimensions to appear in the literature. Referred to as "locus," this perception of the world leads people to believe that outcomes in life are either the result of personal influence or due to chance (outside of personal influence). Initial work on the concept of locus focused on the completion of skills tasks, and internal attribution styles were viewed as good (Weiner, 1990). But researchers like Abramson et al. (1978) were able to demonstrate that internal attributions can be psychologically damaging as well.

One study on internal vs. external locus focused on 40 women, 20 of whom were in treatment for drug dependency and 20 who had no diagnosable mental disorder. These women had proportionally equal exposure to CSA and equivalent levels of social support. What separated these two groups was that the resilient women had less self-blame for the abuse and felt less stigmatized by it (Dufour & Nadeau, 2001).

In a larger study of 369 women enrolled in college, 84 reporting a history of CSA, were assessed on victimization, locus, and adult adjustment. An interesting finding was that women with and without a CSA history did not differ in their likelihood of being internalizers vs. externalizers. However, when an internalizing style was paired with victimization status, the interaction predicted a woman's symptom severity and depression, anxiety, and hostility. Internalizing participants who identified as having a history of severe sexual abuse, who were internalizers, had the highest levels of distress (Porter & Long, 1999).

Locus is a fluid concept. It would not be accurate to think of internal and external loci as categorical variables. They are more accurately conceptualized as lying on a continuum. More importantly, an individual can switch between internal and external attribution style, depending on the attribution being made. For example, an individual with an internal attribution about the cause of her abuse can have an external attribution style regarding positive life events or her belief in her ability to influence negative events. Self-blame and stigmatization beliefs (internal attributions) were indicative of lower self-esteem, interpersonal difficulties, depression, anxiety, and general psychological distress in female CSA survivors. Betrayal and powerlessness beliefs (external attributions) also predict interpersonal difficulties, lower self-esteem, and depression, as well as sexual problems and an external locus of control (Hazzard, 1993). Resiliency, on the other hand, is augmented by external attributions of blame and cognitive style, and an internal locus of control (Valentine & Feinauer, 1993).

Controllability is closely associated with the concept of locus. This is because when internal causal attributions are made, control of the event is perceived to originate from within. This is true, but incomplete. Weiner (1990) designated the cause of events as either being internal and controllable (caused by effort) or internal and uncontrollable (caused by aptitude or biology). External causes by their nature are considered uncontrollable. In situations of CSA, an internal, controllable attribution made by a survivor could be stated as "I was an active participant." An internal, uncontrollable attribution by a survivor could be expressed as "It's my fault because I was an attractive child." The notion of control also speaks to how much power the survivor felt they possessed in the situation. A diminished sense of control over life events is more

common in women with multiple CSA experiences as opposed to a single incident (Bolstad & Zinbarg, 1997).

The effects of external control attributions are seen in a sample of adult female CSA survivors living with HIV. These women had lower perceptions of their current health when they attributed more of the responsibility for their abuse to "powerful others" and less to internal control (Simoni & Ng, 2002). A diminished perception of control over one's life is associated with greater levels of PTSD symptomatology and physical pain (Palyo & Beck, 2005). Making fewer external control attributions has a protective effect against depression in female childhood abuse survivors (Banyard, 1999).

Stability refers to the degree to which an individual believes that the source of an event was persistent (fixed and predictable) versus transient (unpredictable and fluctuating) factor. Stability is often manifested as an expectancy of future outcomes and the likelihood of goal attainment (Weiner, 1990). Stability is considered a key component to the experience of helplessness. Attributing stability to factors demonstrates a belief that events are expected to recur even after some time has passed. Attributing instability to factors shows a belief that causes will pass with time (i.e. "this too shall pass"; Abramson, Seligman, & Teasdale, 1978). An example of stability of beliefs is the notion that one is permanently changed by a sexual assault. Such a belief is one factor associated with the severity of PTSD symptoms (Dunmore, Clark, & Ehlers, 2001).

Generalizability refers to the extent to which an individual subscribes to the belief that the cause of the event can be generalized to impact many aspects of life (global) as opposed to being situation-specific (specific). A belief or response is considered global when it is manifest in situations that are highly dissimilar to the circumstances in which it

was originally learned. Generalizability is considered to be an important component of the development of hopelessness and depression (Abramson, Seligman, & Teasdale, 1978).

Research on stability and generality of attributions in sexual abuse survivors is sparse. Most research efforts have focused on internal and external locus of causation and locus of control (Gray, Pumphrey, & Lombardo, 2003). However, an attempt to extrapolate from existing research can be made. For example, attributing negative outcomes of a natural disaster to internal, stable, global causes was found to mediate the positive correlation between disaster exposure and emotional sequelae (Greening, Stoppelbein, & Docter, 2002). A recent study of 108 graduate students also demonstrated that stable and global attributions are significantly associated with hopelessness and depression (Sturman, Mongrain, & Kohn, 2006).

Attributional Style and Female CSA Survivors

As a group, child sexual abuse survivors, like other victims of violence, tend to make trauma-specific attributions that are internal, stable, and global (Massad & Hulsey, 2006). Although limited, research attempting to unite these different dimensions of attributions exists.

Regehr, Regehr, and Bradford (1998) investigated long-standing depression in 71 women who had been sexually assaulted (i.e., raped or attempted rape) as adults. They found that women who had generalized beliefs (global attributions) that they had no control over events in their life (external control) were more likely to attribute responsibility for the rape to permanent (stable attributions) intrapsychic factors (internal locus). These women also had a higher incidence of depression. Women who believed

in greater internal control were less likely to be depressed one year after the rape occurred and to be functioning better.

Gray, Pumphrey, and Lombardo (2003) looked at the contributions of dispositional attributional style and trauma-specific attributions in relation to PTSD symptoms. They found that attributions specific to the traumatic event were more predictive of PTSD symptoms than an individual's overall attributional style. The "pessimistic attributional style" of internal, stable, global attributions for the trauma was predictive of symptoms of PTSD. Having an overall preference for making stable attributions was also related to the development of PTSD. This study stands out from others because it used an open-ended narrative questionnaire to assess for trauma related attributions. This method is considered to be a more accurate assessment of event related attributions than close ended, Likert style questionnaires.

Falsetti and Resick (1995) studied the relationship between causal attributions, depression, and PTSD in victims of various and multiple crimes. This study was significant because the authors attempted to account for a number of methodological concerns with previous causal attribution studies. Because previous attributional studies had selected victims of certain types of crimes to evaluate, it was uncertain if the results could be extrapolated to victims in general. Also, none of the studies had assessed if participants had experienced crimes other than the primary one in question. Falsetti and Resick chose to use two separate measures of attribution, one assessing overall attribution style and the other assessing locus, stability, and control of a specific real-life event. Finally, they included a control group of non-victimized, non-depressed participants. The results indicated that (1) victims with PTSD differ from non-victims in that they view

positive hypothectical events as inherently less stable, (2) attributions for victimization are more strongly associated with PTSD than with global symptomatology or depression, and (3) the degree to which causal attributions about trauma are internal and stable is predictive of symptomatology. The researchers failed to find as many cross-group differences as they expected, indicating that lumping all victimization experiences together may have had a canceling effect. It is possible that different victimizing experiences can lead to different situational attributions.

Current Understanding of the Relationship between Attributions and Stage of Change

As stated in the previous chapter, research examining the relationship between stage of change and attributional style is limited. A search of the *PsychInfo* database using the operators ("stage of change" or "transtheoretical model" and "attribution style" or "attributions" or "locus of control") resulted in 11 hits, two of which were accidental (contained words that the search engine selected, but were unrelated). Only one study examined the relationship between attributions and stage of change in relation to violence or trauma. None of the articles included sexual abuse as a variable. This section reviews a selection of the research pertaining to the relationship between attributions and stage of change most relevant to this study.

The sample population that bears the most resemblance to females CSA survivors in terms of victimization experiences was a group of women living with domestic violence. The intent of the study was to evaluate factors that might determine a woman's readiness to leave the situation. The Transtheoretical model was used as the formulation for stages of readiness to leave. Cognitive and emotional factors were both evaluated. The cognitive factors consisted of attributions and attachment style. The emotional

factors were depression, hopelessness, anxiety, and anger. Hypothetically, these six factors were going to predict overall readiness to leave. Partner blame as an attribution was expected to be highly predictive of a readiness to change. Study participants included 85 women who were currently living in domestic violence shelters and transitional housing. These situations provide shelter for a limited time, which makes the question of readiness to change even more important (Shurman & Rodriguez, 2006).

The demographic of participants in the Shurman and Rodriguez study are of particular interest, because they resemble the anticipated demographic for participants of this current study. Participants ranged in age from 18 to 55 years (M = 33.89, SD = 9.6). Three quarters of the sample were of Caucasian decent, with the remaining 25% divided fairly evenly among different racial origins (the exception being Asian/Pacific Islander participants, who only comprised 1.2% of the sample). Participants in the sample were primarily low income (*mean* = $5,776, *SD* = $6,963; *household mean* = $26,604, *SD* = $26,962) and have less education than the national average (83.7% of the sample did not have a college degree).

The measure used to assess attribution style was the *Relationship Attribution Measure-Revised.* Participants were to rate the degree to which they agree with statements of causal and responsibility attributions for the abuse. The dimensions of causal attributions consists of locus (internal vs. external), stability (stable vs. unstable), and globality (global vs. specific). Responsibility attributions question self vs. other for motivation for the abuse, intention of the abuse, and blame for the abuse. Participants were assigned to a readiness to change stage with the *Stage of Change Questionnaire.* This questionaire measured participants' attitude towards behavior change that reflect

four of the stages of change: precontemplation, contemplation, action, and maintenance. However, the questions were modified to be more specific to domestic violence situations.

Shurman and Rodriguez found that older women were more likely to be in advanced stages of change and were more likely to assign blame to their partner for the abuse. In addition, the longer a participant had been in the abusive relationship, the more likely they were to be in the precontemplative stage. The contemplative and action stages did not correlate with attribution style. The precontemplative stage marginally correlated with attribution style and the maintenance stage significantly correlated with attribution style. Further analysis revealed that self-blame was moderately present in precontemplators, and significantly present in the maintenance stage.

Overall, attribution style impacted stages of change less than expected. The fact that self-blame was most prevalent in the maintenance stage seems to suggest that reflective guilt may be present after change has been made. Although it did not reach significance, perpetrator blame was highest in the action stage. The insignificance of the attribution style could be a product of the sampling procedure. All of the subjects were currently living away from the abusive situation at the time of evaluation. This would indicate a level of action on the part of the participants that is outside of the domain of precontemplation or contemplation. What Shurman and Rodriguez might have really been measuring is different degrees of readiness in preperation, action, and maintenance stage individuals. This truncated range is could produce attributions that are more similar than stage-specific, producing the non-significance in the results.

Kloek, van Lenthe, van Nierop, Schrijvers, & Mackenbach (2006) examined stages of change in developing moderate-intensity physical activity behaviors in a lower socioeconomic population, and external and psychosocial factors associated with that stage. The Transtheoretical model was selected as a representation of participant intention (precontemplation, contemplation, and preparation) and participant behavior (action and maintenance). The attribution measured was health-related locus of control (i.e. how much control does a participant believe they have over their health).

This study (Kloek et al, 2006) was comprised of a large number of participants (2,781 adults between 18-65 years) from a northern European country. Participant stage of change was determined using an algorithm that began with the question "how high or low is your physical activity level?" Participants who responded "high," "rather high," or "sufficient" were directed towards questions to determine if their stage of change was action or maintenance. Participants who responded "low" or "rather low" were directed towards questions to determine if their stage of change was precontemplation, contemplation, or preperation. Health-related locus of control was assessed by asking participants "do you think you can do much or little to prevent health problems." Participants responded in Likert-style, with "much" to "little" as the poles.

The results indicated that having a low health locus of control (i.e., believing one can do little to prevent health problems) made it more difficult for subjects to move from one stage of change to the next. This was true for all stages, but was most pronounced for individuals in the precontemplation stage. This external attribution of control has a negative effect on the individual because it makes it more difficult for them to change unhealthy behaviors and habits. However, this was only one aspect of external control

and may not be indicative of attributional control style. Also, this aspect of control may not be relevant for female sexual abuse survivors who are not trying to change behaviors or habits. Finally, saying that having an external locus of control makes it more difficult to move between stages does not equal an association with a specific stage of change.

The last point was addressed in an article published two years prior by Kloek, van Lenthe, van Nierop, & Mackenbach (2004) which involved the same sample as Kloek et al. (2006). The focus of this study was on fruit and vegetable consumption by individuals living in low-income neighborhoods. Stage of change was assessed using the same algorithm described in Kloek et al. (2006), and health-related locus of control was assessed using the same question as well. The results indicated that because of the added difficulty attributable to an external locus of control in transitioning between stages of change, individuals with a low health locus of control were more likely to be in an earlier stage of change (precontemplation or contemplation).

A study of prenatal health behaviors and attitudes of pregnant women in the United Kingdom assessd smoking status, smoking stage of change, fetal-health locus of control, and other variables important to fetal health. It was hypothesized that maternal smoking would be associated with other behaviors and beliefs that are potentially harmful to the fetus. This includes having a low fetal-health locus of control (a belief by the pregnant woman that she has little control over the health of the unborn baby). Study participants consisted of 1,203 pregnant women attending prenatal health clinics. Stage of change was assessed as part of a structured, self-report questionnaire, which was not a formalized measure with any empirical validation. Fetal-health locus of control was measured with nine questions derived from the *Fetal Health Locus of Control Scale.*

This scale does have sufficient empirical backing. It contains three subscales to attribute fetal health to: internal, external other, and external chance. Three questions were selected that load to each of these scales (Haslam & Lawrence, 2004).

Of the 1,203 participants, those categorized as precontemplators were more likely to continue to smoke and engage in other potentially harmful behaviors, and were more likely to have a low fetal-health locus of control. This confirmed the original hypothesis and is another example of how a belief in external control is related to negative outcomes and earlier stages of change (Haslam & Lawrence, 2004). Like the Kloek et al. studies, only a specific type of control attribution is examined, and again is limited in its scope. Taken together, it demonstrates that an external locus of control produces poorer outcomes in a variety of settings and contributes to participants being in an early stage of change. Haslam, Lawrence, and Haefeli (2003) also demonstrated that the reverse is true. This study focused on pregnant women and their intention to breastfeed. The purpose of the study was to determine if pregnant women who intend to breastfeed are more likely to have healthier prenatal care behaviors and to have an internal fetal-health locus of control than women who do not intend to breastfeed. Participants (n = 789) completed a survey similar to the one described in Haslam and Lawrence (2004) that included questions on intent to breastfeed, and the same abbreviated version of the *Fetal-Health Locus of Control Scale*. Pregnant women with an internal fetal-health locus of control were more likely to intend to breastfeed and engage in recommended fetal health behaviors. Stage of change was not assessed in this study.

A couple of studies contain some contradictory evidence. One of those studies assessed stage of change in adolescent smokers. The primary purpose of the study was to

assess the validity of different techniques to measure stage of change in adolescent smokers and if the adolescents at different stages would differ from each other in ways consistent with the Transtheoretical model. Locus of control was one of the variables used to test this second research question. Participants consisted of 28 adolescent females and 28 adolescent males. The average age of the participants was 15. Participants were recruited from a smoking program that the youth were required to participate in after receiving police citations for underage smoking. Stage of change was assessed using five different methods. The first was a standard algorithm, similar in structure to the one used in the Kloek et al. studies. Second was a modified algorithm that sub-divides precontemplation into three subgroups. The third measure was the *University of Rhode Island Change Assessment* (URICA). This is a generic questionnaire that measures the stages categorically. It is the most widely used method to assess stage of change in research involving the Transtheoretical model. The authors also used the "readiness to change" method of scoring the URICA. This method produces a single change score. that is computed by summing the contemplation, action, and maintenance scales of the URICA, and then subtracting the precontemplation scale (C + A + M – P = Readiness to Change). This was the method that was used by Shurman and Rodriguez (2006). The final method is referred to as the "contemplation ladder." This measure is specifically designed to assess readiness to quit smoking. Participants rate themselves on an 11-point continuum, with each point indicated by a readiness statement. Participants indicate which statement they agree most with. Five anchor points divide the ladder and represent how close a person is to taking action. Locus of control was determined by an unnamed measure (Stephens, Cellucci, & Gregory, 2004).

Locus of control did not correlate with any of the Stage of Change measures. Unfortunately, this is not a very informative finding because no details were provided on how locus of control was assessed. The more significant outcome of this study was that it appears that different stage of change measures are more accurate when tailored to the population being studied. For example, in the case of court-ordered participants like the ones in this study, the use of the modified algorithm is indicated. In this setting, a large number of precontemplators are likely to be mislabeled by other change measures. With small samples, the URICA is more accurate when used as a continuous rather than a categorical measure, i.e., the readiness to change score (Stephens, Cellucci, & Gregory, 2004).

The traditional conception of stages of change is that the first two stages are characterized by intentions. The last two stages are characterized by behaviors. Only the middle stage, preparation, combines both intent and behaviors as the primary characterization. A more recent model for motivational change has challenged this notion, and proposed that intention and behavior should be incorporated into all four stages. These proposed stages are “Unconcerned” (low intent and low behavior), “Ambivalent” (low intent but moderate behavior), “Optimist” (high intent but low to moderate behavior), and “Active” (high intent and high behavior). A 2004 study sought to compare the two models to find which one was more capable of accounting for attitudes about physical activity and behavior control. Using a stratified sampling technique of health service regions and subgeographic areas in a Canadian providence, 20,430 individuals completed the survey. The participants were separated into four comparison groups according to when they completed the survey. A cluster analysis

revealed that both models performed well in accounting for attitudes about physical activity and behavioral control, but the model that used intention and behavior at all four levels performed better. In both cases, being in a more active stage was related to internal attributions of control (Godin, Lambert, Owen, Nolin, & Prud'homme, 2004). Although this suggests that the stages of change model has not fully matured yet, and could be enhanced, it was still supported as a tool for understanding clients' attitudes towards undergoing change.

A conclusive determination about whether a relationship between attribution style and stages of change exists cannot be made at this point. Overall, the limited published research tends to support the presence of a connection between the two constructs. The strongest link between these two variables appears to be perception of control. Believing that the self has little or no control over health or emotions is related to earlier stages of change. Individuals in the precontemplative or contemplative stage have not made any commitments to change and for precontemplators, no expressed desire for change. From what is known about attribution style, these individuals might not believe that anything they do can change their behavior or situation. This could be a deterrent for working in therapy because of the assumption that the effort will not be rewarded. To be successful, the therapist would need to address these attitudes to help motivate the client towards change.

Changes in attribution style could be part of the change in attitude needed to progress through the stages of change (Jordan, Nigg, Normon, Rossi, & Benisovich, 2002). Interventions most effectively utilized in the early stages of change (precontemplation and contemplation) are cognitive/experiential. These change-

promoting strategies include consciousness raising through feedback and education, catharsis through corrective emotional experiences and dramatic relief, and choosing through self and social liberation (Prochaska & DiClemente, 1982). These interventions are similar to the methods used in attribution retraining.

Attribution retraining is a broad term to describe interventions used by therapists to help clients evaluate and reframe inhibiting attributions. Therapists engaged in attribution retraining work to get the client to recognize her unrealistic negative biases. Attribution retraining has been successfully used in the treatment of depression, anxiety disorders, poor achievement motivation, and couples and family therapy (Hilt, 2004).

Methods for retraining include reviewing the negative event that led to the attribution, pointing out inconsistencies in the types of attributions the client makes about the self as compared to attributions about others, and aiding the client in shifting off some or all of the responsibility for the negative situation (Hilt, 2004). Although in clinical practice interventions in early stages of change and attribution retraining share similarities, this does not mean that there is necessarily a relationship between the two. What it could indicate, however, is that similar cognitive processes underlie both the use of negative attributional styles and the early stages of change.

Although research on the relationship between attributional style and stage of change has not yet examined the dimesions of attributional stability and globalization, they may also be related to stage of change. Presumably, individuals who believe that their difficulties are chronic and universally apply to multiple areas of their life would experience a sense of hopelessness in their situation. For those who hold these

convictions about their problems, it would be difficult to believe that their situation could improve through action or to even contemplate making changes.

Considerations for Study

Research on attributional style has suffered from ambiguity in terminology. Words used to define concepts of attributions are used inconsistently, and the availability of empirically validated measures are limited. These factors complicate design issues and restrict interpretation of current research (Valle & Silovsky, 2002). According to one researcher who studies attributional style and child abuse, "Delineation of the domain to which the term attribution applies still remains the single most significant barrier to progress" (Fincham, 2002, p. 76). The definition that has the greatest significance to this current study is locus of control. Herein locus of control will be defined as the object or objects that causal attributions are connected to, and are viewed by the individual as having power sufficient to influence their problems.

A potential confounding variable would be a failure to recognize that not every female CSA survivor is seeking treatment as a direct result of the abuse they experienced. In a contextual framework, the abuse is one piece that makes up the mosaic of life experiences that comprises their current situation. In recognition that abuse may not be the central issue they are wanting to address in therapy, a measure of attributional style was selected that allows participants to select the problem that is troubling them most right now and answer questions in regards to it. This way, the attributions that the therapist is most likely to be confronting in therapy are the ones being researched.

Hypotheses

Based on the theoretical and empirical work described to this point, the following hypotheses have been generated regarding the relationship between attributional style, stage of change, and symptomatology in adult female survivors of CSA who are participating in psychotherapy. The problems addressed by the proposed research are as follows:

Hypothesis Exploring the First Research Question

Does the general attribution style of a client explain some of the differences in female sexual abuse survivor's readiness to change?

H_1 - Having an external control style would be related to the precontemplative and contemplative stages of change (lower readiness to change scores) among female CSA survivors in therapy.

Individual's who believe that they have little control over what happens to them can be reasonably assumed to have less motivation to attempt to change. This was supported by the findings of Klock et al. (2004) and Sherman and Rodriguez (2006).

Hypothesis Exploring the Second Research Question

Are there particular attribution focal points that are used more frequently by female survivors of childhood sexual abuse?

H_1 - The LAC identifies 10 levels or loci that can be particular focal points for attributions. It is anticipated that the majority of participants would rely more heavily on attributions that are identified by the LAC as internal in nature.

Hypotheses Exploring the Third Research Question

Is self-reported symptomatology correlated with readiness to change in adult female CSA survivors?

H_1 - Lower self-reported symptomatology in treatment-seeking individuals at intake would be correlated with a lower readiness to change score, possibly related to a tendency to under-report symptoms by individuals in the precontemplative stage.

H_2 - Higher self-reported symptomatology in treatment-seeking individuals at intake would be correlated with a higher readiness to change score, possibly related to a recognition of symptoms but lack of active problem-solving by individuals in the contemplative and preparation stages.

Hypotheses Exploring the Fourth Research Question

Is the general attribution style of adult female CSA survivors correlated with self-reported symptomatology?

H_1 - Having an external control style would be correlated with lower symptomatology in treatment-seeking individuals at intake.

H_2 - Having an internal control style would be correlated with higher symptomatology in treatment-seeking individuals at intake.

These hypotheses are based on well-established research that an internal attribution style is related to depression and other psychological symptoms in adult survivors of childhood sexual abuse.

CHAPTER III

Method

Participants

Data collection for this study began in August of 2005 and continued through October of 2008. During this period every client admitted to an outpatient treatment program specializing in trauma was invited to participate in completing the research packet. However, the only responses included in these analyses were from women who indicated that they had been sexually abused as children. The total number of participants in this study was 70. Of those 70 participants, 60 completed the URICA, 58 completed the LAC, and 67 completed the BASIS-32.

The participants consisted of adult women aged 18 to 65 who were living in a densely populated area of the southeastern United States. All of the participants experienced some form of sexual abuse prior to their 18th birthday. At the time of their participation in this study, all of the women were beginning to receive psychotherapeutic services at a clinic that specializes in the treatment of adult clients with a history of trauma or abuse. This clinic is housed in a larger, university-based psychological services center.

Demographic data were collected by the intake clinician who used a structured clinical interview for sexual abuse survivors designed specifically for research purposes within the trauma clinic (see Gold, Hughes, and Swingle, 1996, for a description of the interview and its development). The average age for participants in this study was 39 (sd = 12.442). The median years of education the participants' had completed was 13 (sd =

2.73). Approximately 20.5% had not graduated from high school or received an equivalent diploma. 28.2% had graduated from high school or earned a GED. 12.8% had a four-year college degree. Their employment status included part-time (20.5%), full-time (35.9%), and unemployed (41.0%). Relationship status included single (53.8%), engaged or cohabitating (12.8%), married (10.3%), and separated or divorced (20.5%). 64.1% reported their sexuality as heterosexual, 12.8% as homosexual, 12.8% as bisexual, and 7.7% as asexual or uncertain. Over half of the participants were white (56.4%). Additionally, 15.4% of the participants were Hispanic, 7.7% were African-American, and 5.1% were Black-not of U.S. origin. Another 5.1% claimed multi-racial heritage. The average annual household income was low, with 44.4% earning less than 15K a year.

In regards to the participants' abuse history, 33.3% claimed abuse by one perpetrator, 46.2% by multiple perpetrators, 2.6% were sexually assaulted by a group of attackers, and 12.8% claimed to having been assaulted at least once by an individual perpetrator, and at least once by a group of attackers. The average number of perpetrators (a group of attackers being counted as a single perpetrator) was 3.05 (sd = 3.822).

Overall this group has had a lot of experience with therapy and therapists. The average number of therapists seen by these clients was 6.26 (sd = 7.5). The standard deviation speaks to the breadth of this sample. At one end, some had never met with a therapist before, at the other end, one person claimed to have met with 35 different therapists. The average age when the clients went to therapy for the first time was 19 (sd = 8.39; min = 6; max = 38).

Measures

Measure of Stage of Change

The University of Rhode Island Change Assessment (URICA):

The URICA is a 32-item rational scale assessing an individual's attitude and motivation toward therapeutic change. Based on the concepts of the Transtheoretical model, each item loads to one of four scales representing major stages of change, *precontemplation, contemplation, action, and maintenance.* Responses are given on a five point Likert format where 1 indicates strong disagreement and 5 equals strong agreement (McConnaughy, DiClemente, Prochaska, & Velicer, 1989). The URICA was originally validated on a sample of 155 participants from a community mental health center upon intake. The total variance accounted for by the URICA was 58%. The coefficient alphas were .88 (precontemplation), .88 (contemplation), .89 (action), and (.88) maintenance (McConnaughy, Prochaska, & Velicer, 1983). A later sample that used 323 participants from a psychiatric hospital produced similar internal reliability, means, standard deviations, and correlation coefficients (McConnaughy et al.). This suggests the assessment has utility for participants with a wide-range of psychological problems.

In both McConnaughy studies, the URICA was administered once, during the participants' intake into the study. (McConnaughy et al., 1989).

Measure of Attributional Style

Levels of Attribution and Change Assessment (LAC):

The LAC is a 60-item Likert-style questionnaire. The purpose of the LAC is to assess the levels and loci of causal attributions (Norcross, Prochaska, & Hambrecht,

1985). The LAC has two unique features. First, responders are asked to answer items in regards to a self-selected problem. The advantage of this is that participants are more likely to indicate the actual attributions they are making, instead of reporting their perceptions of their overall attributional style. Second, in addition to identifying an internal vs. external attributional style, the LAC distinguishes 10 levels or loci that are frequently used by individuals. In other words, the LAC identifies their overall attributional style and the focal points of their attributions.

Eight of the ten levels are divided into two second-order components. The Internal-Dispositional component is comprised of five levels: Environmental Difficulties, Maladaptive Cognitions, Familial Conflicts, Interpersonal Conflicts, and Intrapersonal Conflicts. The common theme of these levels is that the locus of the problem in within the person or in their relationships. The External-Situational component contains three of the LAC levels: Spiritual Determinism, Bad Luck, and Biological Inadequacies. These levels represent causal attributions that, regardless of the point of origin, they are beyond individual control. There are two other categories, Chosen Lifestyle and Insufficient Effort, which did not load strongly to either component, and are considered to be *loci* instead of *levels* (Norcross, Prochaska, & Hambrecht, 1985).

The LAC has strong internal consistency, with alpha coefficients that range between .79 (Chosen Lifestyle) and .92 (Spiritual Determinism). The mean for the alpha coefficients is .87. Overall, the 10 levels accounted for 67.5% of the variance in the sample (Norcross, Prochaska, & Hambrecht, 1985).

The creation and initial validity studies were conducted using samples of college students (Norcross, Prochaska, & Hambrecht, 1985; Norcross & Magaletta, 1990).

However, the LAC has been successfully used in research with various populations, including psychotherapists and smokers (Norcross, Prochaska, Guadagnoli, & DiClemente, 1984), psychiatric patients, (Hambrecht & Hohmann, 1993) and inmates (Magaletta, Jackson, Miller, & Innes, 2004). The diversity of these populations would indicate that the LAC would be appropriate for research with a clinical outpatient sample.

Measure of Client Symptomatology

Behavior and Symptom Identification Scale-32 (BASIS-32)

The BASIS-32 is a useful tool for assessing a broad range of psychopathology. The measure is comprised of five domains of mental health symptomatology: relation to self/others, daily living/role functioning, depression/anxiety, impulsive/addictive behavior, and psychosis. The BASIS-32 also has a mean psychopathology component. Respondents are asked to answer 32 items that relate to one of the five domains, in regards to how much difficulty the respondent had in each area. The answer selection consists of five options, ranging from 0 (no difficulty) to 4 (extreme difficulty) (Eisen, Dill, & Grob, 1994). The BASIS-32 was originally developed for use with psychiatric inpatient populations, but has proven to be a valid instrument for use with outpatient populations (Eisen, Wilcox, Leff, Schaefer, & Culhane, 1999).

The BASIS-32 has been utilized in many studies across various client populations, including adults with Borderline Personality Disorder and axis I/II comorbid disorders (Ivaldi, Fassone, Rocchi, & Mantione, 2007), homeless adults (Gamst, Herdina, Mondragon, Munguia, Pleitez, et al., 2006), adults with substance abuse disorders (Johnson, Brems, Mills, & Freemon, 2005), and racial and ethnic samples (Chow, Snowden, & McConnell, 2001). Eisen et al. (1999) conducted one of the largest

outpatient studies assessing the psychometric soundness of the BASIS-32, and has the most generalizable results. Therefore, it is these results that will be reported here to establish the validity of the measure.

The BASIS-32 had moderate to strong internal consistency with the outpatient sample. The alpha coefficients for the subscales was .89 (relation to self/others), .87 (depression/anxiety), .88 (daily living/role functioning), .65 (impulsive/addictive behavior), and .66 (psychosis). Although outpatient responders were less consistent in their ratings on the final two scales, the alpha coefficients were still above .50, which is acceptable for group comparisons. The full-scale reliability for each item was .95 (Eisen et al., 1999).

Eisen et al. (1999) also reported that the BASIS-32 was capable of detecting change over 30 and 90 day intervals (F = 178.41, df = 6,216, $p < .001$). Jerrell (2005) conducted a three-year longitudinal study to assess the sensitivity of the BASIS-32 to client change. She found that client's reported the most consistent and reliable change on the relations to self/others and the daily living/role functioning subscales. The amount of change reported on the other subscales was less reliable, although still statistically significant.

Variables

Readiness to Change

The URICA gives individuals a score on each of its four scales: Precontemplative, Contemplative, Action, and Maintenance. The "readiness to change" score is a composite of the means of the Contemplative, Action, and Maintenance scales, minus the mean of the Precontemplative scale (DiClemente, Schlundt, & Gremmell, 2004). Using

this method, scores of 8 or below are classified as Precontemplative, scores of 8 to 11 are Contemplative, and scores of 11-14 are classified as Action (The HABITS Lab at UMBC, n.d.). This method has been growing in popularity among researchers because it is simpler than using a cluster profile and not so rigid in assigning individual to a particular stage, which has been an oft-repeated criticism of the URICA's traditional scoring method (Carey, Purnine, Maisto, & Carey, 1999).

Attributional Style Variables

The LAC includes 10 scales, one for each of the ten identified levels or loci, and two composite scales. The Internal-Dispositional composite scale is comprised of the Environmental Difficulties, Maladaptive Cognitions, Familial Conflicts, Interpersonal Conflicts, and Intrapersonal Conflicts levels. The External-Situational composite scale contains the Spiritual Determinism, Bad Luck, and Biological Inadequacies levels. The Chosen Lifestyle and Insufficient Effort are considered to be stand-alone scales. The individual scales are tallied as total raw scores. The two composite scales are reported as the means of the subscales that load onto them.

Symptom Variables

The BASIS-32 consists of five scales: relationship to self/other, daily living/role functioning, depression/anxiety, impulsive/addictive behavior, and psychosis. A mean of the five scales, the mean psychopathology, is also calculated. Analysis of these variables will compare change across the series of measurements for the subjects.

Variable Interactions

a. LAC x URICA

One of the principle comparisons was to determine if attribution style, as measured by the LAC (specifically, the Internal-Dispositional and External-Situational scales) has any correlation to participants' readiness to change score. A second comparison attempted to find if the specific levels and loci of the LAC could explain any of the variance in participants' readiness to change score.

b. BASIS 32 x URICA

This group of comparisons was similar to the previous analyses with the LAC and URICA, but replaced attribution style with self-reported symptomatology, as measured by the BASIS-32. Specifically, did the participants' mean psychopathology score correlate to their degree of readiness, and were the individual symptom scales able to explain any of the variance in readiness to change?

c. LAC x BASIS 32

The correlation between attributional style and symptomatology was calculated. If one style had a much stronger correlation to mean psychopathology than the other, it would suggest how attributional style effects symptomatology among the participants.

d. (LAC x BASIS 32) x URICA

The final set of analyses looked at the relationship between the LAC and the BASIS-32 to the URICA. This was done in three parts. First, was the Internal-Dispositional attribution style and mean psychopathology able to explain more of the variance in readiness to change in combination than either

variable did separately? The second combination was to use the External-Situational style and mean psychopathology to answer the same question about variance in readiness to change. The third combination used both attribution styles together to explain variance in readiness to change.

Procedures

The three assessments utilized in this study were incorporated into a larger data collection packet that was given to clients during intake for clinical and research purposes. The packet contained 20 measures that assessed various aspects of personality and symptoms. It took participants approximately two hours to complete. The packet was given to the clients by an intake clinician, who turned the completed packets over to research assistants for entry into a research database. The client was then assigned to a graduate student therapist (a third year Ph.D. or Psy.D. student in their second clinical practicum) or a clinical psychology intern who then provided ongoing therapy. There are 6 clinicians each year, who complete a year-long rotation. Over the three years that data was collected for this study, a total of 18 therapists potentially contributed to the data collection.

Analyses

Data analysis was run using the SPSS statistical program. The raw data was entered into SPSS spreadsheets by the clinic's research assistants. As a result of either omissions by the participants or errors on the part of the research assistants, some of the participants had missing data points. Missing values were filled in using mean substitution. Ten of the 70 participants did not complete the URICA. Four of the remaining 60 were each missing one value. The mean value of the subscale the missing

item loaded on was used for the mean substitution. The result of this was that there was no change to the overall mean of the subscale, but the standard deviation was reduced slightly. Twelve of the 70 participants did not complete the LAC. Four of the remaining 58 needed to have a total of six values inserted through mean substitution. Only three of the 70 participants did not complete the BASIS-32. Five of the participants needed to have one value each inserted through mean substitution.

Once the data set was complete, the frequencies function was run to determine the means, medians, standard deviations, skewness, standard error of skewness, minimum and maximum values of the variables to be used in the analysis (readiness to change score, the 12 scales of the LAC, and the six scales of the BASIS-32). No scales were skewed outside of acceptable limits, and therefore it was allowable to proceed with running Pearson's correlations.

The first analysis run was a Pearson's correlation of the major variables: readiness to change (URICA), internal-dispositional and external-situational (LAC), and the mean pathology score (BASIS-32). A two-tailed test of significance was used, with an alpha level of .05. The next analysis was a run using a linear regression model that entered all of the requested independent variables (the 10 levels/loci of the LAC): environmental difficulties, maladaptive cognitions, familial conflicts, interpersonal conflicts, intrapersonal conflicts, spiritual determinism, bad luck, biological inadequacies, chosen lifestyle, and insufficient effort. The readiness to change score was used as the dependent variable. The significance level was set at $\alpha = .05$. Another linear regression model was then run that entered all of the requested independent variables (the 5 sub-scales of the BASIS-32: psychosis, relation to self and others, impulsive/addictive behavior,

depression and anxiety, and daily living and role functioning). The readiness to change score was used as the dependent variable. The significance level was again set at $\alpha = .05$.

To explore the possibility of interaction among the major variables, three new variables were created: internal-dispositional * mean pathology, external-situational * mean pathology, and internal-dispositional * external-situational. A linear regression model was then used that entered all of the requested independent variables: internal-dispositional, mean pathology, and internal-dispositional * mean pathology. Readiness to change was again used as the dependent variable. This was repeated again with the external-situational, mean pathology, and external-situational * mean pathology variables and then again with the internal-dispositional, external-situational, and internal-dispositional * external-situational variables. Like before, the significance level for these analyses was set at $\alpha = .05$.

CHAPTER IV

Results

Overview of Participants

Readiness to Change

The majority of the participants were classified as either in the action phase (60%) or the contemplation phase (36.7%). Only two women were considered to be precontemplative. The average readiness score of the participants was slightly into the action stage, with the standard deviation placing the actual mean into the contemplation or action stage. See Table 1 for the breakdown of participants into stage of change category with their corresponding group size, percentage of participants, and group mean/standard deviation.

Table 1

Readiness to Change

Readiness to Change Category	*n*	% of Participants	*M (SD)*
Precontemplative	2	3.3	7.37 (.18)
Contemplative	22	36.7	10.09 (.68)
Action	36	60	12.24 (.80)
Participant Total	60	100	11.29 (1.47)

Attribution Style

On average, the participants endorsed using a more internal-dispositional attribution style. However, the standard deviations of both the internal-dispositional style

and the external-situational style overlap with each other. The most commonly endorsed levels, seen as the primary source from whence problems originate were maladaptive cognitions, interpersonal difficulties, intrapersonal difficulties, and familial conflicts. Spiritual determinism and bad luck were the least endorsed levels. Again, the standard deviations were large enough that quite a bit of overlap occurred between the levels. See Table 2 for means and standard deviations of the LAC scales, used to assess attribution style.

Presenting Symptoms

As a whole, the participants' self-reported symptomatology indicated moderate difficulty in their relationships to self and others, with depression and anxiety, and in their ability to function in their social roles and complete their daily responsibilities. They reported a little difficulty with impulsive and addictive behavior, and no difficulty with psychosis. Overall, their mean pathology falls in the minor difficulty category, with the standard deviation falling halfway into the moderate difficulty category. This can be attributed to the effect that the very low instance of psychosis among the sample had on the overall mean. See Table 3 for means and standard deviations of the BASIS-32 scales, used to assess presenting symptoms.

Correlations between Readiness to Change, Attribution Styles, and Mean Pathology

Both attribution styles and symptomatology all correlated with each other. The results displayed in Table 4 indicate that the more an individual endorsed one attributional style, the more likely they were to endorse all attributions. Also, both attribution styles were positively correlated with symptomatology. This suggests that either an increase in attributions resulted in increased symptoms, or as symptoms

Table 2

Attribution Style

Levels of Attribution and Change (LAC) scales (*n* = 58)	*M (SD)*
Internal-Dispositional style [1]	3.32 (.72)
External-Situational style [1]	2.48 (.77)
Maladaptive Cognitions [2]	21.52 (6.52)
Interpersonal Difficulties	21.17 (4.99)
Intrapersonal Difficulties	19.38 (7.30)
Familial Conflicts	19.26 (6.34)
Environmental Difficulties	18.16 (6.59)
Biological Inadequacies	17.50 (6.71)
Insufficient Effort	17.38 (6.26)
Chosen Lifestyle	17.05 (5.59)
Bad Luck	14.57 (6.77)
Spiritual Determinism	12.59 (5.72)

1. Mean of Means of scales that load to this style
2. Scales listed in order of most participant agreement to least.

Table 3

Presenting Symptoms

Participant Results on the BASIS-32 (n = 67)	*M (SD)*
Mean Psychopathology	1.94 (.64)
Relationship to Self/Others	2.46 (.77)
Depression and Anxiety	2.59 (.85)
Daily Living/Role Functioning	2.42 (.92)
Impulsive/Addictive Behavior	1.04 (.83)
Psychosis	.90 (.75)

increased, the more attributions the participants were prone to make. There was, however, a stronger correlation between internal-dispositional attributions and reported symptoms than external-situational attributions and reported symptoms. There was no correlation found between readiness to change and attribution style or symptomatology. See Table 4 for the strengths of the different correlations and their corresponding significance.

Relationship between Readiness to Change, Specific Attributions, and Symptom Categories

Attribution style and self-reported symptomatology were the variables selected to try to explain "readiness to change" among adult female survivors of childhood sexual abuse. The first variables analyzed were the 10 levels/loci of the attribution scale. A regression model was used, and the resulting correlation between the levels of attribution

Table 4

Correlations between Readiness to Change, Attribution Styles, and Presenting Symptoms

		Readiness to Change	Int-Dis	Ext-Sit	Mean Pathology
Readiness to Change	Pearson Correlation	1	.001	-.036	.051
	Sig. (2-Tailed)	---	.995	.789	.708
	N	60	57	57	57
Int-Dis	Pearson Correlation		1	.403**	.472**
	Sig. (2-Tailed)		---	.002	<.001
	N		58	58	57
Ext-Sit	Pearson Correlation			1	.372**
	Sig. (2-Tailed)			---	.004
	N			58	57
Mean Pathology	Pearson Correlation				1
	Sig. (2-Tailed)				---
	N				67

**. Correlation is significant at the 0.01 level (2-tailed).

and readiness to change was $R = .381$. Those variables accounted for 14.5% ($R^2 = .145$) of the variance in readiness to change. There was not a significant relationship between attribution style and readiness to change [$F(10,46) = .781$, Sig. = .646 ($\alpha = .05$)].

The correlation between symptomatology and readiness to change was $R = .227$. Self-reported symptomatology accounted for even a smaller percentage of the total variance in readiness to change, 5.2% ($R^2 = .052$). As with attribution style, there was not

a significant relationship between self-reported symptomatology and readiness to change [$F(5, 51) = .555$, Sig. = .734 ($\alpha = .05$)].

Interactions between Readiness to Change, Overall Attributional Style, and Overall Symptoms

The final set of analyses attempted to find an interaction effect among the different variables included in the study. These analyses were based on a premise that attribution style and self-reported symptomatology were not stand alone variables but co-occurancing. Could the presence of these two variables in tandem explain differences among the participants' readiness to change scores? The first interaction run was between the internal-dispositional attribution style and the mean psychopathology score. Their correlation with readiness to change was $R = .191$. Those variables combined accounted for 3.6% ($R^2 = .036$) of the variance in readiness to change. There was no evidence that these variables interact with each other or with readiness to change [$F(3, 52) = .656$, Sig. = .583 ($\alpha = .05$)]. In fact, the combination of the two variables was a poorer predictor of readiness to change than each of the two variables considered independently of each other.

The second interaction assessed was between the external-situational attribution style and mean psychopathology score. Their correlation with readiness to change was $R = .255$. Those variables combined accounted for 6.5% ($R^2 = .065$) of the variance in readiness to change, a slightly better predictor than symptomatology alone. Still, there was no evidence that these variables interact with each other or with readiness to change [$F(3, 52) = 1.205$, Sig. = .317 ($\alpha = .05$)].

The final interaction run was between the internal-dispositional attribution style and the external-situational attribution style. The correlation these variables had with readiness to change was $R = .109$. The two categories of attribution style accounted for 1.2% ($R^2 = .012$) of the variance in readiness to change. This was by far the poorest performing combination of variables. There was no evidence that these variables interact with each other or with readiness to change [$F(3, 53) = .211$, Sig. = .888 ($\alpha = .05$)].

Secondary Analysis: Difference between High and Low Attributors Self-Reported Symptoms

After reviewing the results of the previous analyses, it became apparent that there was no substantial relationship between a client's attribution style, self-reported symptoms and their current stage of change. Significant positive correlations did emerge between attribution style and self-reported symptomatology.

The positive correlation between an internal attribution style and self-reported symptomatology was not surprising. That relationship has been well documented by other researchers. The positive correlation between an external attribution style and self-reported symptomatology was more unexpected. The implications of this will be discussed later on.

The question that arose from these results, which had not been considered during the original planning of this research, was: Do participants who make more attributions, regardless of the loci of the attributions (internal or external) experience more symptoms than those who make fewer?

To test this, each participant's internal-dispositional score was added to their external-situational score. The sum of these two variables was named the "total

attribution score." Basic data about the total attribution score was calculated, including the mean, standard deviation, median, and quartiles. Outliers were ruled-out by checking the skewness and kurtosis and creating a histogram of the total attribution score. The total attribution score was a relatively normal distribution and contained no outliers.

The participants were categorized based on the quartiles for the total attribution score. Those in the lowest quartile (25^{th} percentile and below) were designated as "low attributors" while those in the highest quartile (75^{th} percentile and above) were designated as "high attributors." There were a total of 13 participants in each group. The remaining participants were eliminated from this analysis. Using the analysis of variance (ANOVA) procedure, the high and low attributors were compared by using their mean psychopathology scores. The average mean pathology score for participants in the high attributors group was 2.61 (sd = .359). For participants in the low attributors group, the average mean pathology score was 1.65 (sd = .619). The resulting F distribution, $F(1,24) = 23.144$, Sig. > .001, $\eta^2 = .491$, Observed Power = .996 ($\alpha = .05$) indicated that there was a significant difference between the degree of psychopathology reported by high and low attributors.

CHAPTER V

Discussion

Readiness to Change

Attribution style and symptomatology did not demonstrate the kind of relationship with client readiness to change that was anticipated. There were no results from this study to suggest that the nature of attributions the CSA survivors in this sample endorsed or the kind of symptoms they reported had any correlation to their readiness to change. Clinicians who assess client readiness to change could still benefit from having a better understanding of where clients are regarding their commitment level in therapy, but this research does not support using a client's symptom severity or what they attribute their difficulties to as a way to achieve an enhanced understanding of their stage of change.

This does not necessarily mean that they are separate and unrelated constructs. Some characteristics of the sample may explain the lack of statistical significance in the results. Only two of the 60 participants who completed the URICA measure fall into the precontemplative category. The majority of the participants in the study endorsed items indicating that they considered themselves to be in the action stage. The sample's overall readiness to change mean was also in the action range of the scale. Their self-reported ratings created little variance in their readiness to change score. The measures of attribution style and symptomatology were unable to detect differences in participants' readiness to change score because, among this group, there was no difference to be found. This was a group that, for the most part, had elected to come to counseling

voluntarily. They viewed themselves as predominately action-oriented. At least during the initial intake session, they were motivated and ready to work in therapy.

Attributions

It was not surprising that the top four sources that participants' attributed their problems to were maladaptive cognitions, interpersonal difficulties, intrapersonal difficulties, and family conflicts. These are core areas for an individual's well being and the most likely reasons for someone to seek psychotherapy. What is interesting about these areas is that it fits well with the Transtheoretical model's conceptualization of an individual's movement through therapy.

According to two of the model's leading proponents, James Prochaska and John Norcross (2003), clients initially seek relief from symptoms and situational stressors. But in the course of receiving treatment, it becomes obvious to the client and the therapist that the problems originate from deeper sources. The most obvious of these is maladaptive cognitions. Other sources for problems are current interpersonal conflicts, family/systems conflicts, and intrapersonal conflicts (in this study, participants' ranked intrapersonal difficulties, with a mean of 19.38, slightly higher than family conflicts, by .12). In this regard, use of the Transtheoretical model with this population of clients at least partially supported.

The value of determining the overall style and levels of attributions made by a client has value to the client and therapist in treatment planning, mainly by providing a more individualized approach to counseling. It is easy to image the scenario where a psychologist with a full patient load may see three clients with a very similar symptom presentation; depression, for example. But while one client's depression may be related

primarily to maladaptive cognitions, the next may have more to do with family conflicts. The third client's primary source of depression may be due to intrapersonal difficulties. These would all require different approaches and emphases in treatment and utilizing inflexible, untailored therapeutic approaches may mean success for only one of the three.

What the results do not seem to support is attempting to change a client's attributional style in order to produce symptom relief.

Attribution Style and Symptomatology

This study adds additional confirmatory evidence that adult female CSA survivors who have and use a more internal attributional style are more likely to experience symptoms of depression, anxiety, and other psychological maladies. It is possible that individuals prone to internal attributions may experience more symptoms as a result of their critical self-opinion. It is also possible that greater psychological distress might prompt a person to look at themselves more critically, given that they are the common factor across situations and may have more difficulty finding a viable outside source to ascribe their troubles to.

As stated in the results, there was overlap between the level of agreement with statements of internal attributions and external attributions. The quick interpretation of this is that participants recognized that they used both attributional styles, though they tended to endorse the internal attributions more. Perhaps a more interesting outcome is that individuals who have an increased use of external attributions also report an increase in symptoms. Participants in this study who were in the top 25% of total attributions made, on average, reported moderate symptomatology on the BASIS-32 mean

psychopathology scale. Participants in the bottom 25% of total attributions made reported mild symptomatology on the BASIS-32 mean psychopathology scale.

It appears that the more attributional reasoning is used by an individual, regardless of the internal/external nature of the attribution, the more symptoms they end up reporting. It is also possible that experiencing more symptoms prompts a person to search more vigorously for an explanation, increasing the amount of attributions they make. It was not clear which mechanism or order is at work.

Attribution Style

This study documents that women with a history of childhood sexual abuse who attend counseling may not be best categorized as "internalizers" or "externalizers," seeing that they tend to use both internal and external attributions. A more accurate way to conceptualize their attribution style would be "attributors" or "nonattributors." This would recognize that individuals who make more frequent use of one style of attribution tend to also use the other style more frequently.

The clinical implication of this would be that an intervention approach that focuses on changing the content of a client's attributions many not be that effective in producing relief from psychological symptoms. In more direct terms, helping a client decrease the amount of internal attributions they make by getting them to focus more on external loci may feel good to the therapist (because they don't have to listen to the client blame themselves as much), but not do much to make the client feel better. The data from this study indicates that while individuals who make more internalized attributions do report more psychological symptoms, it is not much different from those who make more externalized attributions. Whether the client's attributional focus is internal or

external, this evidence suggests that the presence of attributions is associated with feeling worse.

Clinical Application

Utilizing a Client's Readiness

Among female childhood sexual abuse survivors who voluntarily attend psychotherapy, the majority, at least initially, view themselves as motivated to work and ready to make changes. Over half of the participants in this study categorized themselves in the "action" stage, desiring to actively work on their problems. Almost all of the rest of the participants were seriously considering making changes in their life. These initial sessions with a client appear to be a critical time for them. It is the responsibility of the clinician to use this time as effectively as possible, so as to build on that initial desire for change. This is especially important, given that the mode number of therapy sessions attended by clients is one (Nielsen, et al., 2010). If the therapist doesn't find a way to engage the client and utilize their motivation early on, they will likely find that the client becomes stagnant or drops out of treatment.

In addition to focusing on building the initial therapeutic alliance, the clinician should try to discover the client's motivation for change and emphasizing what the client can start to do *right now* to address their problems. A number of motivational interviewing techniques have been developed that could be used in this process. The therapist could also use that initial session to orient the client to counseling, provide them with exercises to practice at home, or give them other homework such as journaling, behavior monitoring, etc. Whatever the therapeutic approach, it is important that the

client leave that initial session with their motivation intact and that the clinician takes care to monitor and foster it throughout the course of therapy.

Dealing with Attributions

In psychotherapy, "acceptance" is the term that is applied to the act of allowing for negative experiences without seeking an attributing cause or assigning responsibility. Acceptance is the act of receiving something offered (Acceptance, n.d.). The accepting person receives what their environment and experiences have offered them, withholding judgment and defensiveness. It doesn't mean that an individual has to like what has happened. It also does not mean that they are prevented from taking action to change circumstances and possible future outcomes. But they do reject denial and recognize attributing blame as an ineffective endeavor. Among participants in this study, individuals who agreed with fewer of the attribution statements on the LAC also reported significantly less symptoms of psychological distress. That means that they reported experiencing less depression, anxiety, less difficulty with relationships, and less difficulty with the tasks of daily living and functioning within their roles. All of which are desirable psychotherapy outcomes.

Systems of psychotherapy that explicitly use acceptance have become more prominent over the last two decades. These systems challenge some of the old assumptions about change in the behavioral and cognitive traditions. The new approaches focus particularly on the context and functions of psychological phenomena. (Hayes, 2004). Although context and functionality were certainly considered by previous approaches, this new wave of therapies makes them a focal point. Acceptance becomes an important concept in these conceptualizations because people are viewed as having a

more symbiotic relationship with their environment and experiences, rather than being the principle agents.

Two of these newer approaches that have gained wide recognition are Acceptance and Commitment Therapy (ACT) and Dialectical Behavior Therapy (DBT). There are other approaches that utilize acceptance, many of them based in mindfulness practice. However, ACT and DBT are the most widely publicized and therefore will be used as examples in this discussion. Steven Hays (2005), the principle founder of ACT, wrote this description of acceptance:

> "Acceptance' … is based on the notion that, as a rule, trying to get rid of your pain only amplifies it, entangles you further in it, and transforms it into something traumatic. Meanwhile, living your life is pushed to the side. The alternative we teach…is to accept it. Acceptance, in the sense it is used here, is not nihilistic self-defeat; neither is it tolerating and putting up with your pain. It is very, very different than that. Those heavy, sad, dark forms of "acceptance" are almost the exact opposite of the active, vital embrace of the moment that we mean" (p. 7).

The use of acceptance in DBT is described in a similar way:

> "The practice of acceptance includes focusing on the current moment, seeing reality as it is without "delusions," and accepting reality without judgment. The practice also encourages students to let go of attachments that obstruct the path to enlightenment, to use skillful means, and to find a middle way." (Robins, Schmidt, & Linehan, 2004, p. 39)

This second quote suggests how reducing the number of attributions made can have a positive effect on psychological symptoms. Staying focused on present moment experience, attempting to see reality accurately, and withholding judgments could all reduce the need to make attributions about problems.

Limitations of the Study

One of the original considerations for this study was deciding what would be the best way to measure and report stage of change. The stage of change measure (URICA) was originally intended to categorize people into one of four stages of change, and the scales were created to reflect that. As the measure was used by researchers, problems with the categorical approach became more recognizable and new methods of scoring were developed. One approach was to try to create a client profile using their scores on the four stages. Another method was to combine the four separate scores into one. This new score was considered to be an indicator of an individual's "readiness to change". The higher the score, the more likely they were to be more action-oriented in therapy. The readiness to change score was used in this study because it is a very simple measure and was the strongest variable to work with a small sample size.

The logic behind the selection of the readiness to change variable also underlies some of the limitations of this project. The reason that a correlation between attribution style, symptomatology, and readiness to change could not be demonstrated is likely attributable, in some part and maybe in entirety, to these limitations.

The sample size of 70 total participants was relatively small for a study utilizing as many variables as were included in this project. Having a smaller sample can affect the reliability of a study. There is an increased potential for statistical error, either categorizing things as not significant when they are, or categorizing them as significant when they are not. In this instance, the outcome was that there was no significance between readiness to change and its predictor variables. That may not be a reliable answer. The relationship that was significant, total attributions made and

symptomatology, had the statistical power sufficient to believe that it was an accurate outcome.

The factor that was more likely to have affected the outcome, rather than the size of the sample, was that the participants in this study were self-selected. Almost all of the participants voluntarily chose to come to counseling. By the time they walked through the clinic doors, they had moved past the precontemplative stage and were at least willing to consider that there were areas of their life that needed changing. Only two of the 60 participants who completed the URICA scored in the precontemplative range. Such a disparity makes it unlikely that any major differences could be found among these participants. Other studies that have found differences between participants using the URICA almost always report those differences as between individuals in the precontemplative stage vs. individuals who have moved past that stage.

The sample was also limited because only one site was used to collect the data. Again, because all of the participants in this study had made the decision to come to treatment, the sample is more homogenous than if women who were sexually abused as children but did not decide to attend counseling had been included. Also, the nature of the clinic's location, cost, and counseling staff likely influenced who was willing seek services there. This would increase the uniformity of the sample and make differences more difficult to detect.

A final limitation to consider is that the sample was not followed over time. This study was a snapshot of a particular time in the life of the participants, entering treatment. It is important to realize that this does not disparage the study. It allows for greater focus on a crucial time for these clients. However, it must be recognized that any discussion of

outcomes for these clients is based on inference from this data. A longitudinal study would be necessary to determine the accurateness of these inferences.

Considerations and Future Directions

To move forward with this research, some additional studies will need to occur. Future projects will be aided from both the findings of the current study, and an understanding of the limitations discussed in the previous section. Ideally, future studies would collect data from a larger, more diverse group. It would settle the question of if the apparent lack of a relationship between attribution style, symptomatology, and readiness to change was a product of the limitations or if they truly are independent of each other.

Increasing the sample size to 140 (doubling the current sample size) would increase the reliability of the outcome and create more certainty about the accuracy of significant results. These participants could still be recruited from the mental health clinic used to collect data in this study, but they would also be drawn from additional sources. One source could be private practitioners in the community, whose patients are likely to come from a different demographic. Collecting questionnaire responses from a non-clinical community sample of women would also be important. Participants could be recruited from the medical facility on campus, the university student body, or by placing ads in local publications. Creating a way for participants to answer the questionnaires through the internet, or offering some kind of incentive for participation could increase the likelihood of getting these additional participants. Gathering data from these additional sources should increase the range of responses on the URICA and other measures, and improve the generalizability of the results.

For participants who are engaged in therapy, a longitudinal design could be implemented. The questionnaires could be completed by new clients at the beginning of their treatment and then at a predetermined interval point, possibly between the 4th and 6th sessions (because one prescribed, time-limited therapy will not be utilized by all the clinicians collecting data, it would be very difficult to collect data using a pre-post therapy model of data collection). Four to six sessions would most likely be the ideal because research on the transtheoretical model indicates that clients who advance from one stage to the next in one month are more likely to experience more therapeutic gains than those who take longer to advance through the stages of change (Prochaska and Norcross, 2003). If resources were available, additional questionnaires could be mailed to participants 6 months after they complete treatment, to see if changes or gains were maintained.

This longitudinal component would uncover how attribution style, symptomatology, and stage of change evolve during the process of psychotherapy. Not only would this provide a better understanding of the nature of change, it could assist in clarifying the relationship between attributions and symptomatology. If a reduction in the number of attributions occured before a decrease in symptomatology, that would provide additional credibility to the claims about the power of acceptance has as a clinical tool. On the other hand, if a reduction in symptoms occurred before a decrease in the number of attributions made, than it would appear that it is the presence of psychological suffering that prompts the attributional seach and when they (the symptoms) diminish, so does the need to make attributions.

One final, separate study that could be conducted would be to change the instructions of the LAC questionnaire to be specific to the participants' sexual abuse experiences. Currently the measure ask participants to respond to the questions by thinking about their current reasons for seeking counseling. It would be interesting and informative to see how those responses would change if they were asked to respond to the questions by thinking about their history of sexual abuse.

Summary of the Hypotheses

The final section of chapter two listed several research questions and their hypotheses that would be tested. Although these have been addressed throughout the results and discussion, this section will state them specifically.

Hypothesis Exploring the First Research Question

Does the general attribution style of a client explain some of the differences in female sexual abuse survivor's readiness to change?

H_1 - Having an external control style will be related to the precontemplative and contemplative stages of change (lower readiness to change scores) among female CSA survivors in therapy.

There was no evidence to support this hypothesis. The external control style was not correlated with a lower readiness to change score. Only two of the 60 participants had a readiness to change score in the precontemplative range. Having an internal control style was not correlated with readiness to change either.

Hypothesis Exploring the Second Research Question

Are there particular attribution focal points that are used more frequently by female survivors of childhood sexual abuse?

H_1 - The LAC identifies 10 levels or loci that can be particular focal points for attributions. It is anticipated that the majority of participants will rely more heavily on attributions that are identified by the LAC as internal in nature.

Participants had a higher rate of agreement with attribution statements that were internally focused. All of the levels that loaded to the Internal-Dispositional scale (Environmental Difficulties, Maladaptive Cognitions, Familial Conflicts, Interpersonal and Intrapersonal Conflicts) were all rated higher than the External-Situational levels and freestanding loci of the LAC.

None of the levels/loci of the LAC were able to predict participants' readiness to change score. Participants did not appear to favor certain attributions based on their readiness to change.

Hypotheses Exploring the Third Research Question

Is self-reported symptomatology correlated with readiness to change in adult female CSA survivors?

H_1 - Lower self-reported symptomatology in treatment-seeking individuals at intake will be correlated with a lower readiness to change score, possibly related to a tendency to under-report symptoms by individuals in the precontemplative stage.

H_2 - Higher self-reported symptomatology in treatment-seeking individuals at intake will be correlated with a higher readiness to change score, possibly related to a recognition of symptoms but lack of active problem-solving by individuals in the contemplative and preparation stages.

As with attribution style, self-reported symptomatology was not related to readiness to change, regardless of the degree of symptom severity they reported.

However, participants who agreed with a higher number of the attribution statements on the LAC reported a significantly higher degree of symptom severity.

Hypotheses Exploring the Fourth Research Question

Is the general attribution style of adult female CSA survivors correlated with self-reported symptomatology?

H_1 - Having an external control style will be correlated with lower symptomatology in treatment-seeking individuals at intake.

H_2 - Having an internal control style will be correlated with higher symptomatology in treatment-seeking individuals at intake.

Both attribution styles were positively correlated with symptomatology. The more participants agreed with either statements of internal or external attributions, the more symptoms they reported. Although individuals who had a greater degree of agreement with statements of internal attributions (internalizers) did report more symptoms (a stronger correlation existed) than externalizers did, the difference wasn't significant.

Conclusion

At the conclusion of this project, the remaining question is, what does influence a client's readiness to change? The original purpose of this study was to attempt to answer that question in part. While it is disappointing to have reached the end by only being able to state what variables do not influence readiness to change, some valuable insights were inadvertently gained in the process. This research underscores the need to engage female sexual abuse survivors, voluntarily attending treatment, in the very early sessions of therapy with action-oriented interventions to capitalize on their initial motivation and

belief that they are ready to make changes. It also demonstrated that there is not much difference in symptomatology reported by client's favoring either an internal attribution style or an external attribution style. Instead, the evidence suggests that an all-around reduction in attributions made is associated with a significant decrease in symptomatology.

This project was also instructional in the way it demonstrates the process of scientific research. The disappointment and frustration experienced after the initial null results gave way to new questions. Studying the outcomes, it appeared that there was no difference between the symptomatology of internalizers vs. externalizers, but there appeared to be a trend of decreasing symptomatology as the number of attributions decreased. Believing that it was not sufficient to simply state that this tread appeared to exist, an additional analysis was decided on to add statistical confirmation to the supposition. The results were positive and added additional depth to this report. In terms of clinical applicability, it may be even more important than understanding what influences the client's stage of change because it directly involves symptom reduction, which is the desired outcome of psychotherapy. Had the original analysis had a positive outcome, it is unlikely that the additional review of the data would have occurred and this outcome would have been overlooked.

While there is still the need for additional research to be conducted in order to understand the universality and applicability of this study, this project concludes with some promising ideas about approaches to increase client responsiveness in therapy and reduce their psychological suffering.

REFERENCES

Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology, 87(1),* 49-74. Acceptance. (n.d.). In Dictionary.com. Retrieved from http://dictionary.reference.com/browse/acceptance

Babcock, J. C., Canady, B. E., Senior, A., & Eckhardt, C. I. (2005). Applying the transtheorectical model to female and male perpetrators of intimate partner violence: Gender differences in stages and processes of change. *Violence and Victims, 20,* 235-250.

Banyard, V. L. (1999). Childhood maltreatment and the mental health of low-income women. *American Journal of Orthopsychiatry, 69(2),* 161-171.

Barker-Collo, S. L. (2001). Adult reports of child and adult attributions of blame for childhood sexual abuse: Predicting adult adjustment and suicidal behaviors in females. *Child Abuse & Neglect, 25,* 1329-1341.

Bolstad, B. R., & Zinbarg, R. E. (1997). Sexual victimization, generalized perception of control, and posttraumatic stress disorder symptom severity. *Journal of Anxiety Disorders, 11(5),* 523-540.

Callaghan, R. C., Hathaway, A., Cunningham, J. A., Vettese, L. C., Wyatt, S., & Taylor, L. (2005). Does stage-of-change predict dropout in a culturally diverse sample of adolescents admitted to inpatient substance-abuse treatment? A test of the transtheoretical model. *Addictive Behaviors, 30,* 1834-1847.

Carey, K.B., Purnine, D.M., Maisto, S.A., & Carey, M.P. (1999). Assessing readiness to change substance abuse: A critical review of instruments. *Clinical Psychology: Science and Practice, 6(3),* 245-266.

Celano, M. (1992). A developmental model of victims' internal attributions of responsibility for sexual abuse. *Journal of Interpersonal Violence, 7(1),* 57-69.

Celano, M., Hazzard, A., Campbell, S. K., & Lang, C. B. (2002). Attribution retraining with sexually abused children: Review of techniques. *Child Maltreatment, 7(1),* 65-76.

Chow, J.C.C., Snowden, L.R., & McConnell, W. (2001). A confirmatory factor analysis of the BASIS-32 in racial and ethnic samples. *Journal of Behavioral Health Services & Research, 28(4),* 400-411.

Coleman, R. A. (2004). Childhood abuse and neglect and adult intimate relationships: A prospective study. *Child Abuse & Neglect, 28,* 1133-1151.

DiClemente, C. C. (2005). A premature obituary for the transtheoretical model: A response to West (2005). *Addiction, 100,* 1046-1048.

DiClemente, C.C., Schlundt, D., & Gemmell, L. (2004). Readiness and stages of change in addiction treatment. *The American Journal on Addictions, 13(2),* 103-119.

Dong, M., Anda, R. F., Dube, S. R., Giles, W. H., & Felitti, V. J. (2003). The relationship of exposure to childhood sexual abuse to other forms of abuse, neglect, and household dysfunction during childhood. *Child Abuse & Neglect, 27,* 625-639.

Draucker, C. B. (1996). Family-of-origin variables and adult female survivors of childhood sexual abuse: A review of the research. *Journal of Child Sexual Abuse, 5,* 35-63.

Dufour, M. H., & Nadeau, L. (2001). Sexual abuse: A comparison between resilient victims and drug-addicted victims. *Violence and Victims, 16(6),* 655-672.

Dunmore, E., Clark, D. M., & Ehlers, A. (2001). A prospective investigation of the role of cognitive factors in persistent posttraumatic stress disorder (PTSD) after physical or sexual assault. *Behavior Research and Therapy, 39(9),* 1063-1084.

Edwards, T. A., Houry, D., Kemball, R. S., Harp, S. E., McNutt, L., Straus, H., Rhodes, K. V., Cerulli, C., & Kaslow, N. J. (2006). Stages of change as a mental health correlate of mental health symptoms in abused, low-income African American women. *Journal of Clinical Psychology, 62(12),* 1531-1543.

Eisen, S.V., Dill, D.L., Grob, M.C. (1994). Reliability and validity of a brief patient-report instrument for psychiatric outcome evaluation. *Hospital & Community Psychiatry, 45(3),* 242-247.

Eisen, S.V., Wilcox, M., Leff, H.S., Schaefer, E., & Culhane, M.A. (1999). Assessing behavioral health outcomes in outpatient programs: Reliability and validity of the BASIS-32. *The Journal of Behavioral Health Services & Research, 26(1),* 5-17.

Falsetti, S. A., & Resick, P. A. (1995). Causal attributions, depression, and post-traumatic stress disorder in victims of crime. *Journal of Applied Social Psychology, 25(12),* 1027-1042.

Fassler, I. R., Amodeo, M., Griffin, M. L., Clay, C. M., & Ellis, M. A. (2005). Predicting long-term outcomes for women sexually abused in childhood: Contribution of abuse severity versus family environment. *Child Abuse & Neglect, 29,* 269-284.

Feiring, C., Taska, L., & Chen, K. (2002). Trying to understand why horrible things happen: Attribution, shame, and symptom development following sexual abuse. *Child Maltreatment, 7(1),* 26-41.

Feiring, C., Taska, L., & Lewis, M. (1998). The role of shame and attributional style in children's and adolescents' adaptation to sexual abuse. *Child Maltreatment, 3,* 129-142.

Fincham, F. D. (2002). Child abuse: An attribution perspective. *Child Maltreatment, 7(1),* 76-80.

Flett, G. L., Blankstein, K. R., Occhiuto, M., & Koledin, S. (1994). Depression, self-esteem, and complex attributions for life problems. *Current Psychology: Developmental, Learning, Personality, Social, 13,* 263-281.

Ford, G. G. (1996). An existential model for promoting life change: Confronting the disease concept. *Journal of Substance Abuse Treatment, 13(2),* 151-158.

Freerick, M. M., & Snow, K. L. (2005). The relationship between childhood sexual abuse, social anxiety, and symptoms of posttraumatic stress disorder in women. *Journal of Family Violence, 20,* 409-419.

Gamst, G., Herdina, A., Mondragon, E., Munguia, F., Pleitez, A., Stephens, H., et al., (2006). Relationship among respondent ethnicity, ethnic identity, acculturation, and homeless status on a homeless population's functional status. *Journal of Clinical Psychology, 62(12),* 1485-1501.

Gipple, D. E., Lee, S. M., & Puig, A. (2006). Coping and dissociation among female college students reporting childhood abuse experiences. *Journal of College Counseling, 9,* 33-46.

Girvin, H. (2004). Beyond 'stages of change:' Using readiness for change and caregiver-reported problems to identify meaningful subgroups in a child welfare sample. *Children & Youth Services Review, 26,* 897-917.

Godin, G., Lambert, L. D., Owen, N., Nolin, B., & Prud'homme, D. (2004). Stages of motivational readiness for physical activity: A comparison of different algorithms of classification. *British Journal of Health Psychology, 9(2),* 253-267.

Gold, S. N. (2000). *Not trauma alone: Therapy for child abuse survivors in family and social context.* New York, NY: Routledge.

Gold, S. N., Hughes, D. M., & Swingle, J. M. (1996). Characteristics of childhood sexual abuse among female survivors in therapy. *Child Abuse & Neglect, 20,* 323-335.

Gray, M. J., Pumphrey, J. E., & Lombardo, T. W. (2003). The relationship between dispositional pessimistic attributional style versus trauma-specific attributions and PTSD symptoms. *Anxiety Disorders, 17,* 289-303.

Greening, L., Stoppelbein, L., & Docter, R. (2002). The mediating effects of attributional style and event-specific attributions on postdisaster adjustment. *Cognitive Therapy and Research, 26(2),* 261-274.

Hambrecht, M., & Hohmann, M. (1993). Causal attributions in psychiatric patients. *European Archives of Psychiatry and Clinical Neuroscience, 242(5),* 318-320.

Haslam, C., & Lawrence, W. (2004). Health-related behavior and beliefs of pregnant smokers. *Health Psychology, 23(5),* 486-491.

Haslam, C., Lawrence, W., & Haefeli, K. (2003). Intention to breastfeed and other important health-related behaviour and beliefs during pregnancy. *Family Practice, 20(5),* 1-5.

Hayes, S. C. (2004). Acceptance and Commitment Therapy and the new behavior therapies: Mindfulness, acceptance, and relationship. In S. C. Hayes, V. M. Follette, & M. M. Linehan (Eds.), *Mindfulness and Acceptance: Expanding the Cognitive-Behavioral Tradition* (1-29). New York, NY: The Guilford Press.

Hayes, S. C. (2005). *Get out of your mind and into your life: The new Acceptance and Commitment Therapy.* Oakland, CA: New Harbinger Publications.

Hazzard, A. (1993). Trauma-related beliefs as mediators of sexual abuse impact in adult women survivors: A pilot study. *Journal of Child Sexual Abuse, 2(3),* 55-69.

Herman, J. (1997). *Trauma and recovery: The aftermath of violence – from domestic abuse to political terror.* New York, NY: Basic Books.

Hilt, L. M. (2004). Attribution retraining for therapeutic change: Theory, practice, and future directions. *Imagination, Cognition and Personality, 23(4),* 289-307.

Hodgins, D. C. (2005). Weighing the pros and cons of changing change models: A comment on West (2005). *Addiction, 100,* 1042-1043.

Hutchings, P. S. & Dutton, M. A. (1993). Sexual assault history in a community mental health center clinical population. *Community Mental Health Journal, 29, 59-63.*

Ivaldi, A., Fassone, G., Rocchi, M.T., & Mantione, G. (2007). The integrated model (individual and group treatment) of cognitive-evolutionary therapy for outpatients with borderline personality disorder and axis I/II comorbid disorders: Outcome results and a single case report. *Group, 31(1-2),* 63-88.

Janoff-Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition, 7(2),* 113-136.

Jerrell, J.M. (2005). Behavior and Symptom Identification Scale 32: Sensitivity to change over time. *Journal of Behavioral Health Services & Research, 32(3),* 341-246.

Johnson, M.E., Brems, C., Mills, M.E., & Freemon, M. (2005). Utility of the Behavioral and Symptom Identification Scale (BASIS-32) at an alcohol detoxification unit. *Alcoholism Treatment Quarterly, 23(1),* 17-29.

Johnson, J. G., Cohen, P., Brown, J., Smailes, E., & Bernstein, D. P. (1999). Childhood maltreatment increases risk for personality disorders during early adulthood. *Archives of General Psychiatry, 56,* 600-606.

Johnson, J. L., Fava, J. L., Velicer, W. F., Monroe, A. D., & Emmons, K. (2002). Testing stage effects in an ethnically diverse sample. *Addictive Behaviors, 27,* 605-617.

Johnson, D. M., Sheahan, T. C., & Chard, K. M. (2003). Personality disorders, coping strategies, and posttraumatic stress disorder in women with histories of childhood sexual abuse. *Journal of Child Sexual Abuse, 12,* 19-39.

Jordan, P. J., Nigg, C. R., Norman, G. J., Rossi, J. S., & Benisovich, S. V. (2002). Does the transtheoretical model need an attitude adjustment? Integrating attitude with decisional balance as predictors of stage of change for exercise. *Psychology of Sport and Exercise, 3,* 65-83.

Katerndahl, D., Burge, S., & Kellogg, N. (2005). Predictors of development of adult psychopathology in female victims of childhood sexual abuse. *Journal of Nervous and Mental Disease, 193, 258-264.*

Kendler, K. S., Kuhn, J. W., & Prescott, C. A. (2004). Childhood sexual abuse, stressful life events, and risk for major depression in women. *Psychological Medicine, 34,* 1475-1482.

Kloek, G. C., van Lenthe, F. J., van Nierop, P. W. M., & Mackenbach, J. P. (2004). Stages of change for fruit and vegetable consumption in deprived neighborhoods. *Health Education & Behavior, 31(2),* 223-241.

Kloek, G. C., van Lenthe, F. J., van Nierop, P. W. M., Schrijvers, C. T. M., & Mackenbach, J. P.(2006). Stages of change for moderate-intensity physical activity in deprived neighborhoods. *Preventive Medicine: An International Journal Devoted to Practice and Theory, 43(4),* 325-331.

Kolko, D. J. & Feiring, C. (2002). Explaining why: A closer look at attributions in child abuse victims. *Child Maltreatment, 7(5),* 5-8.

Koopman, C., Gore-Felton, C., & Spiegel, D. (1997). Acute stress disorder symptoms among female sexual abuse survivors seeking treatment. *Journal of Child Sexual Abuse, 6(3),* 65-85.

Koraleski, S. F., & Larson, L. M. (1997). A partial test of the transtheoretical model in therapy with survivors of childhood sexual abuse. *Journal of Counseling Psychology, 44(3),* 302-306.

Krull, J.L., & MacKinnon, D.P. (2001). Multilevel modeling of individual and group level mediated effects. *Multivariate Behavioral Research, 36(2),* 249-277.

Leahy, T., Pretty, G., & Tenenbaum, G. (2003). Childhood sexual abuse narratives in clinically and nonclinically distressed adult survivors. *Professional Psychology: Research and Practice, 34,* 657-665.

Leserman, J. (2005). Sexual abuse history: Prevalence, health effects, mediators, and psychological treatment. *Psychosomatic Medicine, 67,* 906-915.

Lewis, R. J., Griffin, J. L., Winstead, B. A., Morrow, J. A. & Schubert, C. P. (2003). Psychological characteristics of women who do or do not report a history of sexual abuse. *Journal of Prevention & Intervention in the Community, 26,* 49-65.

Liem, J. H., James, J. B., O'Toole, J. G., & Boudewyn, A. C. (1997). Assessing resilience in adults with histories of childhood sexual abuse. *American Journal of Orthopsychiatry, 67,* 594-606.

Magaletta, P.R., Jackson, K.L., Miller, N.A., & Innes, C.A. (2004). Levels of attribution and change in a high-security correctional population. *Journal of Offender Rehabilitation, 39(2),* 1-17.

Massad, P. M. & Hulsey, T. L. (2006). Causal attributions in posttraumatic stress disorder: Implications for clinical research and practice. *Psychotherapy: Theory, Research, Practice, Training, 43,* 201-215.

McConnaughy, E.A., DiClemente, C.C., Prochaska, J.O., & Velicer, W.F. (1989). Stages of change in psychotherapy: A follow-up report. *Psychotherapy, 26(4),* 494-503.

McConnaughy, E.A., Prochaska, J.O., & Velicer, W.F. (1983). Stages of change in psychotherapy: Measurement and sample profiles. *Psychotherapy: Theory, Research, and Practice, 20,* 368-375.

Najman, J. M., Dunne, M. P., Purdie, D. M., Boyle, F. M., & Coxeter, P. D. (2005). Sexual abuse in childhood and sexual dysfunction in adulthood: An Australian population-based study. *Archives of Sexual Behavior, 34,* 517-526.

Nielsen, S. L., Lambert, M. J., Smart, D. W., Okiishi, J., Isakson, R. L., Pedersen, T., & Nielsen, D. L. (2010). The implementation of empirically supported psychotherapy: Practice foundations. In R. A. Carlstedt (Ed.), *Handbook of*

Integrative Clinical Psychology, Psychiatry, and Behavioral Medicine: Prespectives, Practices, and Research (59-78). New York, NY: Springer Publishing Company.

Norcross, J.C., & Magaletta, P.R. (1990). Concurrent validation of the levels of attribution and change (LAC) scale. *Journal of Clinical Psychology, 46(5),* 618-623.

Norcross, J.C., Prochaska, J.O., Guadagnoli, E., & DiClemente, C.C. (1984). Factor structure of the levels of attribution and change (LAC) scale in samples of psychotherapists and smokers. *Journal of Clinical Psychology, 40(2),* 519-528.

Norcross, J.C., Prochaska, J.O, & Hambrecht, M. (1985). Levels of attribution and change (LAC) scale: Development and measurement. *Cognitive Therapy and Research, 9(6),* 631-649.

Palmer, S. E., Brown, R. A., Rae-Grant, N. I., & Loughlin, M. J. (2001). Survivors of childhood abuse: Their reported experiences with professional help. *Social Work, 46(2),* 136-145.

Palyo, S. A., & Beck, J. G. (2005). Post-traumatic stress disorder symptoms, pain, and perceived life control: Associations with psychosocial and physical pain. *Pain, 117,* 121-127.

Porter, C. A., & Long, P. J. (1999). Locus of control and adjustment in female adult survivors of childhood abuse. *Journal of Child Sexual Abuse, 8(1),* 3-25.

Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research & Practice, 19(3),* 276-288.

Prochaska, J. O., & Norcross, J. C. (2001). Stages of change. *Psychotherapy: Theory, Research, Practice, Training, 38,* 443-448.

Prochaska, J. O., & Norcross, J. C. (2003). *Systems of psychotherapy: A transtheoretical analysis* (5th ed.). Pacific Grove, CA: Brooks/Cole.

Regehr, C., Regehr, G., & Bradford, J. (1998). A model for predicting depression in victims of rape. *Journal of the American Academy of Psychiatry and the Law, 26(4),* 595-605.

Reise, S.P., & Duan, N. (1999). Multilevel modeling and its application in counseling psychology research. *The Counseling Psychologist, 27(4),* 528-551.

Robins, C. J., Schmidt III, H., & Linehan, M. M. (2004). Dialectical Behavior Therapy: Synthesizing radical acceptance with skillful means. In S. C. Hayes, V. M. Follette, & M. M. Linehan (Eds.), *Mindfulness and Acceptance: Expanding the Cognitive-Behavioral Tradition* (1-29). New York, NY: The Guilford Press.

Rochlen, A. B., Rude, S. S., & Barón, A. (2005). The relationship of client stages of change to working alliance and outcome in short-term counseling. *Journal of College Counseling, 8,* 52-64.

Rosen, C. S. (2000). Is the sequencing of change processes by stage consistent across health problems? A meta-analysis. *Health Psychology, 19,* 593-604.

Samarasinghe, D. (2006). Calling the 'stages of change' bluff. *Addiction, 101,* 138.

Shurman, L. A., & Rodriguez, C. M. (2006). Cognitive-affective predictors of women's readiness to end domestic violence relationships. *Journal of Interpersonal Violence, 21(11),* 1417-1439.

Simoni, J. M., & Ng, M. T. (2002) Abuse, health locus of control, and perceived health among hiv-positive women. *Health Psychology, 21(1),* 89-93.

Steel, J., Sanna, L., Hammond, B., Whipple, J., & Cross, H. (2004). Psychological sequelae of childhood sexual abuse: Abuse-related characteristics, coping strategies, and attributional style. *Child Abuse & Neglect, 28,* 785-801.

Stephens, S., Cellucci, T., & Gregory, J. (2004). Comparing stage of change measures in adolescent smokers. *Addictive Behaviors, 29(4),* 759-764.

Sturman, E. D., Mongrain, M., & Kohn, P. M. (2006). Attributional style as a predictor of hopelessness depression. *Journal of Cognitive Psychotherapy. Special Issue: Cognitive-behavioral assessment and treatment of couples, 20(4),* 447-458.

Sutton, S. (2005). Another nail in the coffin of the transtheoretical model? A comment on West (2005). *Addiction, 100,* 1043-1045.

The HABITS Lab at UMBC (n.d.). *Readiness score for URICA.* Retrieved July 15, 2008, http://www.umbc.edu/psyc/habits/content/ttm_measures/urica/readiness.html

Ullman, S. E., & Brecklin, L. R. (2002). Sexual assault history, PTSD, and mental health service seeking in a national sample of women. *Journal of Community Psychology, 30(3),* 261-279.

Valentine, L., & Feinauer, L. L. (1993). Resilience factors associated with female survivors of childhood sexual abuse. *American Journal of Family Therapy, 21(3),* 216-224.

Valle, L. A., & Silovsky, J. F. (2002). Attributions and adjustment following child sexual and physical abuse. *Child Maltreatment, 7(1),* 9-24.

Weiner, B. (1990). Searching for the roots of applied attribution theory. In S. Graham, & V. S. Folkes (Eds.), *Attribution theory: Applications to achievement, mental health, and interpersonal conflict* (pp 1-13). Hillsdale, NJ: Lawrence Erlbaum Associates.

West, R. (2005). Time for a change: Putting the transtheorectical (stages of change) model to rest. *Addiction, 100,* 1036-1039.